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OF THE

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FIFTH SESSION, TWELFTH PARLIAMENT, 1915.

A

Abercorn, Quebec—*re* number, salaries of employees at Customs port of in 1911.. 180
Agriculture—Report of the Minister of for year ended March 31, 1914..... 15
Agricultural Instruction Act—Report on for 1913-14.. 93
Agricultural Instruction Act—Return *re* arrangements between Government and Provinces.. .. .. 93*a*
Agricultural Instruction Act—Correspondence between Dr. C. C. James, J. C. Chapais and Provinces *re*.. .. .. .. 93*b*
American citizen—*re* killing of, and shooting another by Militia in Lake Erie, etc.. 143
Antigonish Harbour—*re* dredging at since 1912, etc.. 164
Armoury at Amherst, N.S.—*re* construction of, etc.. 89
Archives—Report of work of for year 1913.. .. .. 29*b*
Astronomer Chief—Report of for year ending March 31.. .. .. 25*a*
Atlantic Ocean Freight Rates—Documents *re* from Nova Scotia to Dept. of Trade and Commerce, since August, 1914.. 267
Auditor General's Report 3 Vols.—Pts. A to L; M to V; V to Z.. 1

B

Baker Lake, N.B.—*re* correspondence between Dept. of Marine and Fishery Overseer at.. 297
Barracks Property, Shelburne, N.S.—*re* purchase of by Government.. 273
Bannatyne, R.—*re* copies of documents respecting cancellation of entry for N. W. ¼ section of land in section 24, township 35, range 18, west of 2nd meridian.. 104

B

Belanger, Théophile—Correspondence *re* claims made by the detention of baggage, etc.. 254
Belgium—Communication from Consul General of *re* protest of against German Chancery, etc.. 233
Bluff Head, Yarmouth Co., N.S.—*re* repairs and extension of breakwater at. 186
Bonds and Securities—Detailed statement of since January 21, 1914.... .. 102
Boots—Report of Board of Officers on, as supplied to Canadian force.. 91
Boots, ankle—Showing how many firms ordered from, number of, etc.. 117
Bow River Power and Storage Investigation, seasons of 1911-12-13.. .. .. 25*c*
Brownlee, T. A.—*re* medical supplies purchased from by Government since July 1, 1914.. 261
Bicycles—*re* number of firms and persons from whom Government ordered since July 1, 1914.. 225

C

Canadian Pacific Railway:—
Average cost per mile from inception to date, etc, also average rental, etc. 46
Copy of agreement between Government and *re* special grant respecting irrigation system in Alberta.. 98
Re lands sold by during year ended September 30, 1914.. 106
Re Copies of O. in C. *re* required under Resolution passed in 1882, since last return.. 115
Canadian Northern Railway Co.:—
Return showing total bond issue of, and affiliated companies, cost to date of construction of lines composing system, etc.. 79
Copies of Reports of Committee of Privy Council *re* advances made to, and also G.T.P. Ry. Co., etc.... .. 190

C

Canada Cycle and Motor Co.—Relating to tires purchased by Government from 130
Canadian Car and Foundry Co. of Amherst, N.S.—*re* cost of preparing for military purposes, etc.. 155
Capitally convicted persons in Canada—Statistics from 1867 to Feb. 1914.. .. 53
Caraquet and Tracadie—*re* tenders received for mail service between.. .. 191
Carslake Hotel—*re* purchase of for Post Office purposes.. 218
Census of Canada, 1911—Agriculture, Volume IV.. .. .. B
Chance Harbour and Trenton, Pictou Co. N.S.—*re* mail contract.. 167
Churchill and Port Nelson, Ports of—*re* plans, reports, and soundings of.. .. 70
Civil Service List of Canada, for year, 1914.. 30
Civil Service Commission—Annual Report of for year ended August 31, 1914. 31
Coal imported into Alberta, Saskatchewan and Manitoba from U. S. in 1914—duties, etc.. 96
"Coasting Voyages"—respecting such as defined in Canada Shipping Act since 1886.. 214
Commander Lieut.—Lieutenant Commander Engineer, and Lieutenant Commander, R.C.N.V.R.. Navy.. .. .. .. 43*a*
Conciliation and Investigation—Report of Registrar of Board of, year ended March 31, 1914.. .. .. 36*a*
Cotton Shirts—*re* names of firms or persons from whom purchased by Govt. since July 1, 1914.. .. .. 260*a*
Criminal Statistics for year 1913.... .. 17
Customs—Report of Department of for year ended March 31, 1914.. 11

D

Dairy and Cold Storage Commissioner—Report of for year ended March 31, 1914.. .. .. 15*a*
Dartmouth and Dean's, P. O Branch of I.C. Ry.—Names of persons from whom lands have been bought, etc.. 251
Demarcation of Meridian of 141st Degree West Longitude—Report of Commissioners, *re*.. 97
Destructive Insect and Pest Act—Regulations under.. 92

Dismissals:—
Avard, Fredk., of I.C.R.. 82
Arbuckle, Isaac, foreman carpenter on I.C.R. at Pictou, N.S.. 244
Blais, Alex., Lévis, Que.—Customs officer at Bradore Bay.. 240
Bruce, Wiswell—Sectionman at Stellarton, N.S. on I.C.R.. 198
Brennan, Jas., fireman, I.C.R. at Stellarton, N.S.. 112
Bonnyman, Alfred H.—Postmaster at Mattatal Lake, N.S.. 204
Case, W. A.—Govt. Quarantine Service Halifax, N.S.. 80
Carter, Warren, of I.C.R.. 82
Cyr, Emile, Postmaster at St. Hermas, Co. of Two Mountains.. 275
Day, Jos., of Little Bras D'Or, N.S.. .. 292
Dion, Ulric, Lightkeeper at St. Chas. de Caplan, Quebec.. 58
Employees—dismissed, resigned, deserted to date, etc., from Oct. 10, 1911... 85

D

Dismissals—*Continued.*
Employees—dismissed, resigned, deserted to date, etc., from Oct. 10, 1911.. 85*a*
Employees—dismissed, resigned, deserted to date, etc., from Oct. 10, 1911.. 85*b*
Employees—dismissed, resigned, deserted to date, etc., from Oct. 11, 1911.. 85*c*
Employees—dismissed, resigned, deserted to date, etc., from Oct. 10, 1911.. 85*c*
Employees—dismissed and appointed in P.E.I. since Oct. 10, 1911, to date. 86
Humphries, A. E., Inspector of Immigrations, Lethbridge, Alta.. 132
Hutchinson, Leonard, Chief Keeper, Dorchester Penitentiary.. 181
Hurlbert, T. P., Postmaster, Springdale, Yarmouth Co., N.S.. 208
Higginbotham, Edwd. N., Postmaster, Lethbridge, Alta.. 274
Ingraham, H. W., Asst. Registrar of alien enemies, Sydney, C.B.. 157
Larivière, Mr.—Dominion Lands Agent at Girouard.. 100
Mallet, Mr.—Captain of lifeboat station at Cheticamp, N.S.. 159
Marshall, Chas. H.—Postmaster at Nanton, Alta.. 211
Medicine Hat, and McLeod—dismissals and appts. in present constituencies of from 1896 to present date.. 296
McGibbon, A. R.—Customs Service, Lethbridge, Alta.. 108
McKenzie, Dr. John—M. D. to Indians of Pictou Co., N.S.. 160
Postmaster at Johnstown, Richmond Co., N.S.. 62
Postmaster at St. Romuald, Que.... 105
Pipes, Brown—Customs service Lethbridge, Alta.. 108
Shelburne Co., N.S.:—
J. V. Smith of (Wood Harbour); John H. Lyons, Barrington Passage; Wm. L. Smith, Baccaro; E. D. Smith, Shag Harbour; J. A. Orechia, Woods Harbour.. 139
J. C. Morrison, Shelburne; Albert Mahaney, Churchover; W. L. Smith, Baccaro, N.S.; J. A. Arechia, Lower Wood Harbour, and J. C. Morrison, Shelburne, N.S.. .. .. 139*a*
Thomas, John, Postmaster at Hammond's Plain, N.S.. .. ..205-205*a*
Thomson, W. M., Postmaster at Fort Qu'Appelle, Sask.. 244
Dominion Police Force—Statement relating to for year 1914.. 69
Dominion Trust Company—documents *re* incorporation of, etc.. 121
Dominion Trust Company respecting certain Act passed by Legislature of B.C., relating to.. .. .. 121*a*
Dominion Lands Survey Act, O. in C. from Dec. 13, to January 15, relating to.. 128
Dominion Lands Survey Act, O. in C. from January 1914 to February 1915. 128*a*
Dominion Lands within 40 mile Ry. Belt in B.C.—O. in C. in 1914 *re*.. .. .. 128*b*
Dominion Lands—40 mile Ry. Belt B.C.—O. in C. *re* between Dec. 1913, and Jan. 15, 1915.. .. .. 128*c*
Drill Shed or armoury at Inverness, Inverness Co., N.S.—Correspondence *re*.. 125
Duck Mountain Timber Reserve—documents *re* placing of settlers on homesteads of, etc.. 259

E

Estimates required for service of Dominion, year ending March 31, 1916.. 3
Estimates Supplementary for service of Dominion, year ending March 31, 1915. 4
Estimates Further Supplementary for service of Dominion, year ending March 31, 1915.. 5
Estimates Further Supplementary for service of Dominion, year ending March 31, 1916.. .. .. 5a
Edmundston, N. B.—Clair N.B., and Green River, N.B., *re* customs money collected at for last five years 137
Elections—By, held during year 1914.. 18
Empress of Ireland—Report of Royal Commission, and evidence relating to. 21b
Engineer Officers—Regulations *re* classification of.. .. .. 43b
"Eureka," Str.—names of sailors employed on, years 1910, 1911, 1912, 1913. 78
European War—Memo. respecting work of Dept. of Militia and Defence *re* 1914-15.. 75
Exchequer Court of Canada—Rules, orders, etc., made in Feb. 1915.. .. .. 54a
Exchequer Court of Canada—Rules, orders, etc.. 54
Experimental Farm—Report of Director of, etc., for year ending March 31, 1914.. 16
Express Companies—agreements entered into between Depts. of Fisheries and Railway, etc.. 59
Express Statistics of the Dominion of Canada, year ended June 30, 1914.. 20e
Experimental Farms, Report of Director of, for year ending March 31, 1914, Vol. II.. 16
External Affairs—Report of Secy. of State for, for year ended March 31, 1914.. .. .. 29a

F

Farrington, J. F.—B. H. Smith, and H. C. Dash—*re* moneys paid to, etc.. .. 56
Ferguson, Thos. R.—Report of *re* Blood Indian Reserve, etc.. 266
Ferguson, Thos. R.—Return *re* Riding Forest Reserve, etc.. 268
Ferguson, Thos. R.—Copies O. in C.—P. C. 1109 and P. C. 1589—*re* appointment of as commissioner.. 291
Ferguson, Thos. R.—Report of *re* "Craven Dam," Walter Scott, Lieut. Governor Brown, and J. G. Turriff.. 290
Ferguson, Thos. R.—Report of Grazing Ranch No. 2422, J. G. Turriff, A. J. Adamson and J. D. McGregor.. 289
Ferguson, Thos. R.—Timber Berths 107 and 1108, W. H. Nolan, A. W. Fraser, and J. G. Turriff.. 288
Ferguson, Thos. R.—Aylwin Irrigation Tract, E. A. Robert and J. B. McGregor.. 287
Re Bulletin Co., Hon. F. Oliver and G. T. P. Railway Co.. 286
Ferguson, Thos. R.—Southern Alta. Land Co., Ltd., Grand Forks Cattle Co., J. D. McGregor, Arthur Hitchcock, etc.... 285
Ferguson, Thos. R.—Blood Indian Reserve and Frank Pedley.. 284
Ferguson, Thos. R.—Kananaskis Coal Co. Ltd., Howard Douglas, Geo. E. Hunter, Walter Garrett, etc.. 283
Ferguson, Thos. R.—Timber Berths 550½ and 528, H. Douglas, R. E. A. Leach, D. J. McDonald, etc.. 282

F

Ferguson, Thos. R.—*re* (*a*) Dominion Lands; *re* (*b*) Timber and Mineral Lands, etc.; *re* (*c*) Water Power and rights; (*d*) Indian Lands and Indian Reserves.. 281
Report of to investigate all matters *re* Dominion Lands, Indian Lands, Reserves, Water Powers, etc., since July, 1896, etc.. 281
Foster, Wm. Gore, of Dartmouth, N.S., *re* appointment of as Inspector of Indian Reserves.. 176
Fenian Raid Volunteer Bounty—*re* names, addresses, etc., to whom paid in Co. of Yarmouth, N.S.. 145
Fenian Raid Volunteer Bounty—*re* names, addresses, etc., to whom paid in Co. of Guysborough, N.S.. 146
Fenian Raid Volunteer Bounty—*re* names, addresses, etc., to whom paid in Co. of Antigonish, N.S.. 150
Fenian Raid Volunteer Bounty—*re* names, addresses, etc., to whom paid in Co. of Pictou, N.S.. 162
Fenian Raid Volunteer Bounty—*re* names, addresses, etc., to whom paid in Co. of Pictou, N.S.. .. .. 162a
Fenian Raid Volunteer Bounty—*re* names, addresses, etc., to whom paid in Co. of Inverness, N.S.. 226
Ferguson, G. Howard—*re* Investigations held by; also fees paid to since Oct., 1911.. 83
Ferry service, between Halifax and Dartmouth, N.S.—*re* establishment of.. .. 215
Ferguson, Thos. R.—Report of *re* Indian Lands, Jas. A. Smart, F. Pedley and W. T. White.. 266
Fisher, Ward, Shelburne, N.S.—Fishery Inspector—*re* amounts of money paid to years 1912, 1913.. 144
Fisheries in tidal waters—*re* proposed transfer of from Provincial to Federal control.. 228
Fisheries in Quebec Province—*re* control of—also List of licenses granted by either Govts. for present year.. 230
Flannel shirts—*re* number of firms or persons from whom Govt. purchased same since July 1, 1914.. 260
Flynn, Wm.—*re* Instructions sent to regarding investigations *re* employees of Marine and Fisheries in Bonaventure Co., Que., etc.. 57
Food-stuffs—exportations to foreign countries other than United Kingdom.. .. 120
Forest Reserves and Park Act—Orders in Council *re* (between Dec. 1913 and Jan. 14).. 127
Forest Reserves and Park Act—Orders in Council *re* between May, 1914 and July, 1914.. .. .. 127a
Forage Caps—*re* number of firms, etc., from whom Govt. ordered same since July 1, 1914.. 237
Freight rates charged years 1912-13 on wheat by C.P. Ry.'s, lines, Allan lines, and Canadian Northern Ry.'s lines from Canadian Ports to those of United Kingdom.. 81
Fresh Fish *re* transportation of between ports in N.S. and United States.. .. 153

G

Geographic Board Report of for year 1914 27d
Georgian Bay Canal—respecting petitions, documents, etc., re construction of from Sept. 21, 1911.. .. .. 72a
Geological Survey—Report of for year 1913.. 26
Georgian Bay Canal—Return re proposals to Government for construction of, etc.. 72
Gingras, J. E., re appointment of as postmaster St. Romuald, Que.. 209
Governor General's Warrants, etc., issued since last session of Parliament, 1914-1915.. 64
Government offices—re answer in Hansard page 161, respecting furnishing of same.. 193
Grain—re results of all grain per grade in terminal elevators in Port Arthur and Fort William in 1912, 1913, 1914.. 235
Grand Etang—re conduct of Postmaster at since appointment at to date.. .. 210
Green Harbour and vicinity—re regulation of fish traps in.. 213
Gutelius, F. P.—re naturalization of, etc. 141

H

Heard, David, and Sons—re mail contract with between Whitby and G. T. Ry. Station.. 189
Highwater, Que.—re number of, salaries, etc., employees at customs port of.. 179
Homestead lands in Saskatchewan—re fractional areas of sold in 1914..... 192
Hopper, Newton—re suspension of as Conductor on I.C.R., etc.. 197
Horses—Valcartier Camp—re names of parties purchasing same—prices paid, etc.. 272
Hudson Bay or James Bay—re number of ships chartered by Govt. to go there since Oct. 1911.. 148
Hudson Bay or James Bay—re number of ships employed by Railway Dept., amt. expended, etc.. .. .. 148a
Hydrographic Survey—British Columbia. Report of for year 1913.. .. .. 25f

I

Intercolonial Railway:—
Tenders re purchase of cars for in years 1912-1913.. 45
Documents re purchase of cars for in years since July 1, 1914.. .. .. .. 45a
Freight revenue for certain stations on for years 1913-1914.. 47
Names of Staff in several Depts. at Moncton—Salaries, etc.. 48
Return asking if official statement re wages to be paid to officials absent on active service, etc.. 113
Return re the supplying of ice for same at Port Mulgrave, N.S.. 118
Return re sale of hay on lands belonging to in Parish of Bic, Rimouski Co.. 196
Return re Inward tonnage freight, and outward do, January, 1915.. 199

I

Imperial Conference — Correspondence since January 1, 1915 as to calling of re Naval Defence.. 149
Indian Affairs—Report of Department of for year ending March 31, 1914.. .. 27
Indian Reserve, Restigouche, Que.—Documents, etc., re.. 77
Insurance—Report of Superintendent of for year 1914.. 8
Insurance—Abstract of statement of for year ended December 31, 1914.. 9
Inverness Co., N.S., re amounts expended by Dept. of Public Works in, from 1896 to 1915.. 187
Inland Revenues:—
Reports, Returns and Statistics of for year ended March 31, 1915.
Part I.—Excise.. 12
Part II.—Inspection of Weights and Measures, Gas and Electricity.. .. 13
Part III.—Adulteration of Food.. .. 14
International Purity Congress—Report of Government Delegates attending.. .. 142
Interior—Annual Report of Department of year ending March 31, 1914, Vol. I. 25
Interior, re appointments to Dept. of, in Constituencies of Medicine Hat and McLeod—names of, etc.. 241
Irrigation Act—O. in C. passed between Dec. 1913, and January, 1915, re.. .. 129
Isle Perrot—re Construction of bridge to connect with mainland at Vaudreuil.. 182
Island of Montreal—re Construction of bridge between and mainland at Vaudreuil.. .. .. 182a

J

Jordan Breakwater, Shelburne Co., N.S. —re repairs, etc., to same.. 185
Judges—re appointment of since February, 1913.. 51
Justice—Report of Minister of re Penitentiaries, etc.. 34

K

Kit-bags, re purchase of by Govt. since July 31, 1914.. 262

L

Labour, Report of Department of for year ended March 31, 1914.. 36
Lakes of Two Mountains, St. Francis and St. Louis—re rescinding of prohibition of net fishing in, 1915?. 231
Lethbridge—re supplies, etc., for field battery being trained at, etc.. 163
Librarians of Parliament—Joint Report of.. 40
Liquors spirituous, cigars, cigarettes and tobacco—quantity of taken out of bond in Aug., 1914 at Ports in Dominion.. 236

L

List of Shipping for Canada up to December 31, 1914.. 22

Loans—*re* correspondence on subject of —from Imperial Govt. to Canadian Govt.. 156

Lobsters—*re* licenses to pack issued by Govt., issued between Jan. 1, 1912, and Jan. 2, 1913.. 280

Lower Burlington, N.S.—*re* construction of wharf at.. 184

Lower Wood Harbour, N.S.—*re* proposed wharf at.. 220

Lumber Supply to Militia Dept. *re* training Camps at Medicine Hat and Calgary.. 270

Lynch, Margaret—*re* expropriation of lands belonging to in Fredericton, N. B., by I.C.R.. 200

M

Mails:—

Carrying of between Grand River Falls and Grand River, N.S.. 61

Relating to contract between Armagh Station and Mailloux, Bellechasse Co. 133

Relating to documents connected with tenders for service between Low Point and Creignish Station, 1913-14. 134

Relating to contract between New Ross and Vaughan's P.O., Waterville, N.S. 135

Relating to contract between Mabou and Whycocomagh, N.S.. 136

Relating to contract between Chance Harbour and Trenton, N.S.. 167

Relating to contract awarding of at Maria Capes, Bonaventure Co., in 1914.. 168

Relating to contract for rural delivery in Township of Dundee, Huntingdon, Que.. 169

Relating to proposed service between Lower South River and South Side Harbour, N.S.. 170

Relating to carriage of between Canso and Guysborough, documents *re* since 1914.. 171

Relating to route, proposed change in from Inverness Ry. Station to Margaree Harbour, N.S.. 173

Relating to rural route from River John to Hedgeville, Pictou Co., N.S. 232

Relating to contract for the carrying of between Guysborough and Erinville, N.S.. 243

Relating to contract for the Antigonish-Sherbrooke mail service, etc.. 245

Relating to proposed rural delivery between Pictou and Saltsprings, N.S.. 246

Relating to proposed rural service from Bridgetown to Granville Ferry, Annapolis Co., N.S.. 247

Relating to names, etc., of rural carriers in Counties of Chicoutimi and Saguenay and carriers, etc., for St. Prime and St. Louis de Metabetchouan.. 276

Marine and Fisheries—Annual Report of for 1913-1914—Marine.. 21

M

Marine and Fisheries—Annual Report of for 1913-1914—Fisheries.. 39

Marine Biology—1911-1914—Part I.. .. 39*b*

Marine and Fisheries—Supplement to for year 1913-1914, "Steamboat Inspection Report".. 23

Margaree Lobster Hatchery—correspondence *re* collecting of spawn for, etc.. 95

Massonville, Que., *re* number of, salary, names of officials at Customs port of. 178

Mate in R.C. Navy—establishment of rank in.. 43

Marois, G. A.—*re* appointment of to Customs office at Quebec.. 209

Medicine Hat, City of—*re* money spent for Government relief—to whom given, etc.. 138

Militia Council, Report of for year ended March 31, 1914.. 35

Militia General Orders promulgated to period between Nov. 25, 1913, and Dec. 24, 1914.. 73

Medical Supplies purchased from T. A. Brownlee, Ottawa City.. 261

Mines Branch—Report of for calendar year 1913.. .. .. 26*a*

Miscellaneous Unforeseen Expenses—Statement of from August, 1914, to February, 1915.. 65

Moncton, N.B.—*re* names, salaries, etc., of employees at—also names of those superannuated, etc.. 250

Montgomery, Geo. A., late—*re* value, etc., of estate of, etc.. 52

Motor-trucks—*re* number sent with first contingent—from whom purchased, etc. 119

Motor Cycles—number of firms or persons from whom Govt. has ordered same, since July 1, 1914.. 227

Mc

McKeown, A. H.—*re* appointment of to Immigration service at Lethbridge, Alta.. 131

McDonald, W. B.—*re* medical supplies, and other goods purchased from by Govt. since Aug. 1, 1914.. 265

N

Naval Service—Report of Department of for year ending March 31, 1914.. 38

Naval Service—Orders in Council *re* Rates of pay, separation alloyances, etc.. 44

New Brunswick and P. E. I. Railway—Correspondence *re* purchase of.. 202

Newspapers in Canada—List of in which advertisements have been inserted by the Govt. between Oct. 10, 1911, and present date.. 84

Newspapers in Canada—List of in which advertisements have been inserted by Govt. between Oct. 10, 1906, up to Oct. 1911.. .. .. 84*a*

N

Nickel—Correspondence *re* control of exportation of, etc.. 74

North Sydney—Port of—*re* names, tonnage, registry, etc., of all foreign fishing vessels, in 1913.. 50

O

Officers commissioned to 17th N. S. Regt. at Valcartier before sailing for England.. 151

Oliver equipment—Number of firms and individuals ordered from since July 1, 1914.. 175

Ottawa Improvement Commission—Receipts and expenditures of to March 31, 1914.. 67

Overseas Contingents—purchase respecting—also Army contracts under O. in C., *re*.. 123

P

Parry Island *re* advertisements and documents connected with purchasing, etc. 99

Paradis, Télesphore, of Lévis, correspondence, etc., *re* claim of against I.C.R.. 277

Pensionary Assistance—*re* providing of for disabled officers and men on active service.. 206

Pelletier, Hon. and W. B. Nantel, Hon. letters of resignation of, etc.. 90

Pictou-Mulgrave-Cheticamp Steamship route—Correspondence, etc., *re*.. 76

Phinney's Cove and Young's Cove, Annapolis Co., N.S., *re* breakwater at.. 219

Port Daniel West—*re* Lobster hatchery at season of 1914.. 212

Portneuf, Que.—*re* amount of money expended by Govt. from July, 1896 to 1911.. 140

Post Offices:—
Relating to site of at St. Lazare Village, Co. of Bellechasse, Que.. .. 63
Post Offices in Nova Scotia *re* amount of money sent through in past five years, etc.. 107

Post Offices in Counties of N.S.—*re* rent allowances, etc.. 60

Postmaster General—Report of for year ended March 31, 1914.. 24

Post Offices—Total number, salaries, etc., of employees at—Montreal, Toronto, Winnipeg, Halifax, Quebec, St. John, N.B., and Vancouver.. 172

Port Hawkesbury—*re* purchase of a site for public building at.. 222

Prince Edward Island Ry.—Names, positions, and salaries of appointees to, from 1912 to 1914.. 49

Prince Edward Island Ry.—Names, addresses, etc., salaries of appointees from 1911, to present date.. .. .. .. 49*a*

Prisoners of War in Canada—Number of since war, names of places of detention, etc.. 111

P

Prisoners of War in Canada—Number of, cost of each detention camp, etc.. .. 111*a*

Prospect, Halifax Co., N.S.—*re* construction of extension to breakwater at.. .. 221

Public Accounts for year ended March 31, 1914.. 2

Public Works—Report of Minister of for year ended March 31, 1914.. 19

Public Printing and Stationery—Report of for year ended March 31, 1914.... 32

Q

Quebec Board of Trade—Copies of all papers between, and Dept. of Rys. and Canals *re* trains in section of N.T. Ry., between Cochrane and Quebec City.. 114

Quebec Oriental Ry. and Atlantic, Quebec and Western Ry.—*re* tariff on flour shipments.. 203

R

Radiotelegraph Regulation 106, etc.. .. 42

Radiotelegraph Regulation amendment to Nos. 103 and 104.. 42

Regiment 17th of N.S.—alleged ill treatbent of at Salisbury Plain.. 154

Refund—statement of *re* Customs Duties, for year ended March 31, 1914.. .. 126

Remount Commissioners—*re* appointment of—general instructions, etc.. 116

Regina City of—*re* properties acquired by Govt. in since Sept. 21, 1911.. .. 183

Regina City—*re* properties acquired by Govt. since Sept. 21, 1911.. 217

Royal Northwest Mounted Police—Report of for year 1914.. 28

Royal Society of Canada—Statement of affairs of up to April 30, 1914.. 68

Railways and Canals—Report of Dept. of for period from April 1, 1913, to March 31, 1914.. 20

Railways, Canal Statistics, for season of 1914.. .. .. 20*a*

Railways Statistics of Canada, year ended June 30, 1914.. .. .. 20*b*

Railway Commissioners—With Report of Board of, for year ending March 31, 1914.. .. .. 20*c*

Railways and Canals—*re* tenders for ice for I.C.R. at Port Mulgrave, N.S.... 118

Railways proposed line of from Orangedale to Cheticamp, N.S.. 248

Railway Offices at Moncton, N.B.—*re* names of, and salaries paid to employees at.. 250

Railways—relating to construction of in Co. of Guysborough, N.S.. 253

S

St. Lawrence River—Report of Commissioners to investigate water levels of, etc.. 166

S

St. John Valley Railway—Correspondence *re* operation of by I.C.R. since July, 1914.. 257

Stream Measurements for calendar year, 1914.. .. .. 25*c*

Sackville, N.B—*re* roadway to Public wharf at, and spur line from I.C.R. to said wharf.. 258

Saddles—*re* number of ordered—names of firms, individuals furnishing same.. 207

Sandford, Yarmouth Co.—*re* breakwater at and work on same during 1914.. .. 188

Salmon Hatchery—North Margaree—operation of, etc.. 88

Salmon Pond—*re* removal of from "Flat Lands" to New Mills, N.B.. 279

Schroder, Udo F.—*re* application for grazing lease township 40-41, R. 7, West of 3rd Meridian, Sask.. 161

Scoles, C. R., New Carlisle, Que.—*re* payment of balance of subsidy to.. 201

Seager, Chas.—Commissioner investigating charges against public officials—reports of, etc.. 87

Secretary of State—Report of the, for year ended March 31, 1914.. 29

Seed Grain distribution—*re* applications from Prairie Provinces for same.. 147

Separation allowances *re* soldiers of first contingent, etc.. 124

Separation allowances *re* soldiers asking for permission to marry and placing of wives on list.. .. .. 124*a*

Service shirts—*re* number of firms or persons from whom Govt. bought same since July 1, 1914.. .. .. 260*b*

Shareholders in chartered banks—List of as on December 31, 1914.. 6

Shellfish Fishery Commission of 1913—Correspondence of between Dept. of Marine and Fisheries.. 94

Ships, British—Copy of O. in C. restricting transfer of, etc.. 165

Shippegan Gully, Co. of Gloucester, N. B.—*re* pay sheet in connection with repairs to same, Oct. 1914.. 224

Shovels—*re* reports respecting purchase of 25,000, per O. in C. P. 2302, Sept. 4, also further purchases of same.. 271

Smith, B. F.—*re* cutting of lumber by on Tobique Indian Reserve, since March 12, 1914.. 177

Southampton Railway Co.—Report of Royal Commission *re*, etc.. 41

Stevenson, S. J. and Waverley Pharmacy—*re* medical supplies purchased from by Govt. since Aug. 1, 1914.. 263

Steamers *John L. Cann* and *Westport III.* *re* rewards to officers and crews of, etc. 239

Storm Signals at Shippegan, N.B.—*re* transfer of, etc.. 152

Submarines—*re* purchase of by Canadian Govt. by O. in C. dated August 7, 1914, etc.. 158

Submarines Supplementary purchase of by Canadian Govt. by O. in C. dated August 7, 1914, etc.. .. .. 158*a*

S

Submarines—Further purchase of by Canadian Govt. by O. in C. dated Aug. 7, 1914, etc.. .. .. 158*b*

Superannuation and Retiring Allowances—Year ended 31st December, 1914.. 66

Subsidies, Railway, paid in Co. of Inverness, N.S. to date.. 194

Sweetman, J. Herbert, Customs officer, Port Daniel, Que., *re* charges against etc.. 242

T

Telephone Statistics for year ended June 30, 1914.. .. .. 20*d*

Telegraph Statistics for year ended June 30, 1914.. .. .. 20*f*

Three Rivers:—

Number of employees and salaries paid to at Post Office on Sept. 21, 1911; number of employees and salaries paid to at Post Offive a tpresent date; Customs Dept. at, number of employees on Sept. 21, 1911, and at present date; Inland Revenue Dept. at employees on Sept. 21, 1911, and at present date; Public Works on the St. Maurice, Co. of Champlain, number of employees on in 1911-12; Public Works on the St. Maurice, Co. of Champlain, number of employees in since that date; Employees on such work dismissed in Nov. 1914, and Jan. 1915—Wildé Lavallé, Pierre Thivièrge, Joseph Paquin, sr., Jos. Paquin, jr., and Athanase Gelinas, Clerks, etc.. 278

Titles, numbers, and cost of all books and pamphlets issued by King's Printer to March 31, 1914.. 71

Topographical Surveys Branch for year 1912-13.. .. .. 25*b*

Transcontinental Railway—Report of Commissioners of for year ended March 31, 1914.. 37

Transcontinental Railway—Interim Report of Commissioners of for nine months ended Dec. 31, 1914.. .. .. .. 37*a*

Transcontinental Railway—*re* freight rates of N. B. portion of, and removal of Y at Wapski, Victoria, N.B.. 256

Trade and Commerce:—

Part I—Canadian Trade (Imports and Exports).. 10

Part II—Canadian Trade—.. .. .. France.. .. .. Germany.. .. .. United States... .. .. United Kingdom.. .. .. 10*a*

Part III—Canadian Trade, except— France.. .. .. Germany.. .. .. United Kingdom.. .. .. United States.. .. .. 10*b*

Part IV—Miscellaneous Information.. 10*c*

Part V—Report of Board of Grain Commissioners for Canada.. .. .. 10*d*

T

Trade and Commerce—*Continued.*
Part VI—Subsidized Steamships Service.. .. .. 10*e*
Part VII—Trade of Foreign Countries —Treaties and Conventions.. .. .. 10*f*

Trade Unions—Annual Return respecting.. 101
Trawlers, Steam—*re* clearing of from Ports on Atlantic Seaboard of Canada. 269
Transports hired conveyances of troops and material to England—names, owners, etc.. 109
Transport Wagons purchased for second and third contingents—number and from whom, etc.. 110
Trois Pistoles, Pulp and Lumber Co.—*re* burning of buildings of, on I.C.R..... 249
Trust Companies—*re* names of complying with Trust Companies Act of 1914.... 293

U

Unclaimed Balances: Dividends unpaid, etc., prior to Dec. 31, 1913.. 7
Underwear—*re* number of suits of—names and members of firms or persons from whom purchased by Govt. since July 1, 1914.. 264
Uniforms, Soldiers—*re* number of firms, individuals ordered from since July 1, 1914.. 174

V

Vale Railway in Co. of Pictou, N.S.—*re* purchase or lease of since 1911.. .. 195
Valcartier Camp—*re* lands taken possession of by Govt., etc.. 295

V

Valcartier Camp—Horses at—names of parties purchasing same and prices paid, etc.. 272
Veterinary Director General—Report of for, year ended March 31, 1914.. .. 15*b*

W

War Appropriation Act—Correspondence between Auditor General and Govt.—*re* expenditures under.. 122
War Appropriation Act—Correspondence between Auditor General and Govt.—*re* expenditures under.. .. .. 122*a*
Wakeham, Dr. Wm.—*re* report of respecting losses in storms in Baie Chaleur, etc., June, 1914.. 238
Winter Shirts—*re* number of firms, persons from whom Govt. bought same since July 1, 1914.. .. .. 260*c*
Wisewell, Bruce—*re* dismissal of, etc.. 198
Wharves in Co. of Shelburne, N.S.—East Green Harbour and Gunning Cove.... 216
Wheat—*re* copies of documents respecting removal of customs duties on, entering Canada, etc.. 103
Wheat, oats and barley—*re* quantity purchased by Govt. in 1914, for seed distribution in West.. 234
Windsor Branch, I.C.R.—*re* leasing or transfer of to C.P.R.. 252
Wright, Pontiac and Labelle, Counties—of—*re* amounts of money expended since 1911.. 223

Y

Yukon Territory—Ordinances of for year 1914.. 55

See also Alphabetical List, Page 1.

LIST OF SESSIONAL PAPERS

Arranged in Numerical Order, with their titles at full length; the dates when Ordered and when presented to the Houses of Parliament: the name of the Senator or Member who moved for each Sessional Paper, and whether it is ordered to be Printed or Not Printed.

CONTENTS OF VOLUME D.

Fifth Census of Canada, 1911,—Agriculture, Volume IV. Presented by Hon. Mr. Foster, February 8, 1915.. .. ..*Printed for distribution and sessional papers.*

CONTENTS OF VOLUME 1.

(This volume is bound in three parts).

1. Report of the Auditor General for the year ended 31st March, 1914, Volume I, Parts A, B and A to L; Volume II, Parts M to U; Volume III, Parts V to Z. Presented by Hon. Mr. White, February 9, 1915.. .. .. ..*Printed for distribution and sessional papers.*

CONTENTS OF VOLUME 2.

2. The Public Accounts of Canada, for the fiscal year ended 31st March, 1914. Presented by Hon. Mr. White, February 9, 1915 .. .. ..*Printed for distribution and sessional papers.*

3. Estimates of sums required for the service of the Dominion for the year ending on 31st March, 1916. Presented by Hon. Mr. White, February 8, 1915.
Printed for distribution and sessional papers.

4. Supplementary Estimates of sums required for the service of the Dominion for the year ending on the 31st March, 1915. Presented by Hon. Mr. White, March 9, 1915.
Printed for distribution and sessional papers.

5. Further Supplementary Estimates of sums required for the service of the Dominion for the year ending on the 31st March, 1915. Presented by Hon. Mr. White, March 27, 1915.
Printed for distribution and sessional papers.

5*a*. Further Supplementary Estimates for year ending 31st March, 1916, Presented by Hon. Mr. White, March 31, 1915.. .. ..*Printed for distribution and sessional papers.*

CONTENTS OF VOLUME 3.

6. List of Shareholders in the Chartered Banks of the Dominion of Canada as on 31st December, 1914. Presented by Hon. Mr. White, February 9, 1915.
Printed for distribution and sessional papers.

CONTENTS OF VOLUME 4.

7. Report on certified cheques, dividends, unclaimed balances and drafts or bills of exchange remaining unpaid in Chartered Banks of the Dominion of Canada, for five years and upwards prior to 31st December, 1913. Presented by Hon. Mr. White, April 10, 1915.
Printed for distribution and sessional papers.

CONTENTS OF VOLUME 5.

(This volume is bound in two parts).

8. Report of Superintendent of Insurance for year 1914. Presented by Hon. Mr. White, 1915.
Printed for distribution and sessional papers.

9. Abstract of Statement of Insurance Companies in Canada for year ended 31st December, 1914. Presented by Hon. Mr. White, 1914.
Printed for distribution and sessional papers.

CONTENTS OF VOLUME 6.

10. Report of the Department of Trade and Commerce for the fiscal year ended 31st March, 1914: Part I.—Canadian Trade. Presented by Sir George Foster, 8th February, 1915.
Printed for distribution and sessional papers.

CONTENTS OF VOLUME 7.

10*a*. Report of the Department of Trade and Commerce for the fiscal year ended 31st March, 1914: Part II.—Canadian Trade with (1) France, (2) Germany, (3) United Kingdom, and (4) United States. Presented by Sir George Foster, 8th February, 1915.
Printed for distribution and sessional papers.

10*b*. Report of the Department of Trade and Commerce for the fiscal year ended 31st March, 1914: Part III.—Canadian Trade with foreign countries (except France, Germany, the United Kingdom, and United States.) Presented by Sir George Foster, 8th February, 1915.. .. ..*Printed for distribution and sessional papers.*

10*c*. Report of the Department of Trade and Commerce, for the fiscal year ended 31st March, 1914, (Part IV, Miscellaneous Information.) Presented by Sir George Foster, March 27, 1915.. .. ..*Printed for distribution and sessional papers.*

10*d*. Report of the Board of Grain Commissioners for Canada. Presented by Sir George Foster, 1914... .. ..*Printed for distribution and sessional papers.*

CONTENTS OF VOLUME 8.

10*e*. Report of the Department of Trade and Commerce for the fiscal year ending 31st March, 1914. Part VI.—Subsidized Steamship Services, with statistics showing steamship traffic to 31st December, 1914, and Estimates for the fiscal year 1915-16. Presented by Sir George Foster, 1915.. .. ..*Printed for distribution and sessional papers.*

10*f*. Report of Trade and Commerce for fiscal year ended 31st March, 1914. (Part VII.—Trade of Foreign Countries, Treaties and Conventions.) Presented by Sir George Foster, 1915... .. ..*Printed for distribution and sessional papers.*

CONTENTS OF VOLUME 9.

11. Report of the Department of Customs for the year ended 31st March, 1914. Presented by Hon. Mr. Reid, February 11, 1915.. .. *Printed for distribution and sessional papers.*

CONTENTS OF VOLUME 10.

12, 13, 14. Reports, Returns and Statistics of the Inland Revenues of the Dominion of Canada, for the year ended 31st March, 1914 (Part I.—Excise). (Part II.—Inspection of Weights and Measures, Gas and Electricity). (Part III.—Adulteration of Food). Presented by Hon. Mr. Blondin, March 1, 1915.
Printed for distribution and sessional papers.

15. Report of the Minister of Agriculture for the Dominion of Canada, for the year ended 31st March, 1914. Presented by Hon. Mr. Burrell, February 8, 1915.
Printed for distribution and sessional papers.

CONTENTS OF VOLUME 11.

(This volume is bound in two parts).

15*a*. Report of the Dairy and Cold Storage Commissioner for the fiscal year ended 31st March, 1914. (Dairying, Fruit, Extension of Markets and Cold Storage). Presented by Hon. Mr. Burrell, 1915.. .. ..*Printed for distribution and sessional papers.*

15*b*. Report of the Veterinary Director General for the year ending 31st March, 1915. Presented by Hon. Mr. Burrell, 1915.. .. .. ..*Printed for distribution and sessional papers*

16. Report of the Director and Officers of the Experimental Farms for the years ending 31st March, 1914 Presented by Hon. Mr. Burrell, March 1, 1915.
Printed for distribution and sessional papers.

CONTENTS OF VOLUME 12.

17. Criminal Statistics for the year ended 30th September, 1913. (Appendix to the Report of the Minister of Trade and Commerce for the year 1913.) Presented by Sir George Foster, 1915.. .. ..*Printed for distribution and sessional papers.*

18. Return of By-elections for the House of Commons of Canada, held during the year 1914 Presented by Hon. Mr. Speaker, March 12, 1915.
Printed for distribution and sessional papers.

CONTENTS OF VOLUME 13.

19. Report of the Minister of Public Works on the works under his control for the fiscal year ended 31st March, 1914, Volume I. Presented by Hon. Mr. Rogers, February 8, 1915.
Printed for distribution and sessional papers.

CONTENTS OF VOLUME 14.

20. Annual Report of the Department of Railways and Canals, for the fiscal period from 1st April, 1913, to 31st March, 1914. Presented by Hon. Mr. Cochrane, March 12.
Printed for distribution and sessional papers.

20*a*. Canal Statistics for the season of navigation, 1914. Presented by Hon. Mr. Cochrane, 9th April, 1915.. .. ..*Printed for distribution and sessional papers*

20*b*. Railway Statistics of the Dominion of Canada, for the year ended 30th June, 1914. Presented by Hon. Mr. Cochrane, March 12, 1915.
Printed for distribution and sessional papers.

CONTENTS OF VOLUME 15.

20*c*. Ninth Report of the Board of Railway Commissioners for Canada, for the year ending 31st March, 1914. Presented by Hon. Mr. Cochrane, February 8, 1915.
Printed for distribution and sessional papers.

20*d*. Telephone Statistics of the Dominion of Canada, for the year ended 30th June, 1914. Presented by Hon. Mr. Cochrane, March 17, 1915.
Printed for distribution and sessional papers.

20*e*. Express Statistics of the Dominion of Canada for year ended 30th June, 1914. Presented by Hon. Mr. Cochrane, 1915.. .. ..*Printed for distribution nad sessional papers.*

20*f*. Telegraph Statistics of the Dominion of Canada, for the year ended 30th June, 1914. Presented by Hon. Mr. Cochrane, March 17, 1915.
Printed for distribution and sessional papers.

CONTENTS OF VOLUME 16.

21. Forty-seventh Annual Report of the Department of Marine and Fisheries, for the year 1913-1914—Marine. Presented by Hon. Mr. Hazen, February 8, 1915.
Printed for distribution and sessional papers.

21*b*. Report and evidence in connection with the Royal Commission appointed to investigate the disaster of the *Empress of Ireland*. Presented by Hon. Mr. Hazen, 1914.
Printed for distribution and sessional papers.

CONTENTS OF VOLUME 17.

22. List of Shipping issued by the Department of Marine and Fisheries, being a list of vessels on the registry books of the Dominion of Canada on 31st December, 1914. Presented by Hon. Mr. Hazen, 1915.. .. ..*Printed for distribution and sessional papers.*

23. Supplement to the Forty-seventh Annual Report of the Department of Marine and Fisheries for the fiscal year 1913-14—Steamboat Inspection Report. Presented by Hon. Mr. Hazen, March 3, 1915 .. ..*Printed for distribution and sessional papers.*

CONTENTS OF VOLUME 18.

24. Report of the Postmaster General for the year ended 31st March, 1914. Presented by Hon. Mr. Casgrain, February 8, 1915.. .. .. ..*Printed for distribution and sessional papers.*

CONTENTS OF VOLUME 19.

(This volume is bound in two parts).

25. Annual Report of the Department of the Interior, for the fiscal year ending 31st March, 1914.—Volume I. Presented by Hon. Mr. Roche, March 8, 1915.
Printed for distribution and sessional papers.

CONTENTS OF VOLUME 20.

25*a*. Report of Chief Astronomer, Department of the Interior for year ending 31st March, 1914. Presented by Hon. Mr. Roche, 1915.. .. .. ..*Printed for distribution and sessional papers.*

25*b*. Annual Report of the Topographical Surveys Branch of the Department of the Interior, 1912-13. Presented by Hon. Mr. Roche, 1914.
Printed for distribution and sessional papers.

25*c*. Report of progress of stream measurements for calendar year of 1914. Presented by Hon. Mr. Roche, 1914.. .. ..*Printed for distribution and sessional papers.*

CONTENTS OF VOLUME 21.

25*d*. Thirteenth Report of the Geographic Board of Canada for the year ending 30th June, 1914. Presented by Hon. Mr. Roche, 1915.
Printed for distribution and sessional papers.

25*e*. Report on Bow River Water Power and Storage Investigations, seasons 1911-1912-1913. Presented by Hon. Mr. Burrell, 1915.. ..*Printed for distribution and sessional papers.*

25*f*. Report of the British Columbia Hydrographic Survey for the calendar year 1913. Presented by Hon. Mr. Burrell, 1915.. ...*Printed for distribution and sessional papers.*

CONTENTS OF VOLUME 22.

26. Summary Report of the Geological Survey, Department of Mines, for the calendar year 1913. Presented, 1915.. .. ..*Printed for distribution and sessional papers.*

26*a*. Summary Report of the Mines Branch for the calendar year 1913. Presented, 1914.
Printed for distribution and sessional papers

CONTENTS OF VOLUME 23.

27. Report of the Department of Indian Affairs for the year ended 31st March, 1914. Presented by Hon. Mr. Roche, 11th February, 1915.
Printed for distribution and sessional papers.

28. Report of the Royal Northwest Mounted Police, 1914. Presented by Hon. Sir Robert Borden, 8th February, 1915 .. ..*Printed for distribution and sessional papers.*

CONTENTS OF VOLUME 24.

29. Report of the Secretary of State of Canada for the year ended 31st March, 1914. Presented by Hon. Mr. Coderre, 9th February, 1915.
Printed for distribution and sessional papers.

29*b*. Report of the work of the Public Archives for the year 1913. Presented, 1915.
Printed for distribution and sessional papers.

30. The Civil Service List of Canada, 1914. Presented by Hon. Mr. Coderre, 9th February, 1915.. .. ..*Printed for distribution and sessional papers.*

CONTENTS OF VOLUME 25.

31. Sixth Annual Report of the Civil Service Commission of Canada for the year ended 31st August, 1914. Presented by Hon. Mr. Coderre, 19th March, 1915.
Printed for distribution and sessional papers.

32. Annual Report of the Department of Public Printing and Stationery for the year ended 31st March, 1914. Presented by Hon. Mr. Coderre, 6th April, 1915
Printed for distribution and sessional papers.

33. Report of the Secretary of State for External Affairs for the year ended 31st March, 1914. Presented by Sir Robert Borden, 18th February, 1915.
Printed for distribution and sessional papers.

34. Report of the Minister of Justice as to Penetentiaries of Canada, for the fiscal year ended 31st March, 1914. Presented, 1915.. .. ..*Printed for distribution and sessional papers.*

35. Report of the Militia Council for the Dominion of Canada, for the fiscal year ending 31st March, 1914. Presented by Hon. Mr. Hughes, 10th February, 1915.
Printed for distribution and sessional papers.

CONTENTS OF VOLUME 26.

36. Report of the Department of Labour for the fiscal year ending 31st March, 1914. Presented by Hon. Mr. Crothers, 8th February, 1915.
Printed for distribution and sessional papers.

36a. Seventh Report of the Registrar of Boards of Conciliation and Investigation of the proceedings under "The Industrial Disputes Investigation Act, 1907," for the fiscal year ending 31st March, 1914. Presented by Hon. Mr. Crothers, 8th February, 1915.
Printed for distribution and sessional papers.

37. Tenth Annual Report of the Commissioners of the Transcontinental Railway, for the year ended 31st March, 1914. Presented by Hon. Mr. Cochrane, 8th February, 1915.
Printed for distribution and sessional papers.

37a. Interim Report of the Commissioners of the Transcontinental Railway, for the nine months ended 31st December, 1914. Presented by Hon. Mr. Cochrane, 15th February, 1915.. .. .. .

CONTENTS OF VOLUME 28—*Continued.*

45. Return to an Order of the House of the 20th April, 1914, for a copy of all letters, papers, tenders and other documents in regard to the purchase of any cars for the Intercolonial Railway during the years 1912 and 1913. Presented 9th February, 1915.—*Mr. Macdonald*.. .. .. .

CONTENTS OF VOLUME 28—*Continued.*

of convicts; dates of conviction; crime of which convicted; sentences passed; by whom sentenced; sentences commuted, and if so, to what. 3. For a return showing all persons in Canada, and each province, convicted during the above mentioned period of murder whose sentences have been mitigated, or who have received a free pardon, together with a statement of the offences of which they were severally convicted, with the name of convicts; dates of conviction; nature of offence; sentences; and extent of mitigation of sentences and dates. 4. For a return of instances, during the above mentioned period, in which appeal has been made on behalf of the persons convicted of capital offences to His Excellency, the Governor in Council, for the exercise of the Royal Prerogative of pardon, or mitigation of sentences, with the name of convicts; dates of conviction and place; crime of which convicted; sentences; dates of appeal; and the result. Presented 9th February, 1915.—*Mr. Wilson (Laval)*.. ..*Not printed.*

54. General Rules and Orders of the Exchequer Court of Canada made, respectively, on the 23rd September, 1914, and the 18th June, 1914. Presented by Hon. Mr. Coderre, 9th February, 1915.. .. ..*Not printed.*

54a. General Rules and Orders of the Exchequer Court of Canada made on the 15th February, 1915. Presented by Hon. Mr. Coderre, 16th March, 1915... .. ..*Not printed.*

55. Ordinances of the Yukon Territory passed by the Yukon Council in the year 1914. Presented by Hon. Mr. Coderre, 9th February, 1915... .. ..*Not printed.*

56. Return to an Order of the House of the 18th May, 1914, for a return showing the details of moneys paid to J. F. Farrington, $248.25; B. H. Smith, $469.50, and H. C. Dash, $182.40, as set forth in *Hansard* of this session, page 3071. Presented 9th February, 1915.—*Mr. McLean (Halifax)*... .. ..*Not printed.*

57. Return to an Order of the House of the 16th March, 1914, for a copy of instruction sent to Mr. Wm. Flynn, advocate, to hold investigations into charges made against employees of the Department of Marine and Fisheries in Bonaventure County, and reports made by him in such investigations. Presented 9th February, 1915.—*Mr. Marcil (Bonaventure)*.. .. ..*Not printed.*

58. Return to an Order of the House of the 27th April, 1914, for a copy of all documents bearing upon the application made to the Department of Marine and Fisheries for the dismissal of Ulric Dion, lightkeeper at St. Charles de Caplan, Quebec, and the appointment of Omer Arsenault in his place, and on the action taken by the Department in that connection. Presented 9th February, 1915.—*Mr. Marcil (Bonaventure).*
Not printed.

59. Return to an Order of the House of the 9th February, 1914, for a copy of all agreements made and entered into between the Department of Marine and Fisheries or the Government and Railway and Express Companies, including the Intercolonial Railway, relating to the transportation of fresh fish by fast freight or express, since the year 1906; also a copy of all guarantees given to railway and express companies by the Government or any Department thereof, relating to such transportation, together with a statement of all disbursements made by the Department of Marine and Fisheries each year under the terms of such agreements or guarantees, distinguishing between disbursements made on account of fast freight and disbursements made on account of express shipments; also the number of refrigerator cars, subject to guarantee, by Department of Marine and Fisheries, forwarded by fast freight from Mulgrave or Halifax to Montreal, each calendar year since 1906, and the number of tons of freight carried by such cars each year. Also the number of refrigerator express cars forwarded from said points, Mulgrave and Halifax to Montreal, up to December 31, 1913, under the terms of an agreement made since 1911, between the Department of Marine and Fisheries and the railway or express companies or both. Also the number of tons of fresh fish carried by express companies, prior to December 31, 1913, under the last mentioned agreement; and the amount paid up to December 31, 1913, by the Department of Marine and Fisheries, under the last mentioned agreement. Also the number of tons of fresh fish carried by express companies from Mulgrave and Halifax to points west since 1906, on which the Government paid one-third, but not under the terms of the said agreement made as aforesaid, since 1911. Presented 9th February, 1915.—*Mr. Sinclair*.. .. ..*Not printed.*

60. Return to an Order of the House of the 20th April, 1914, for a return showing all the post offices in the several counties in the province of Nova Scotia for which a rent allowance, or a fuel fund, and light allowance is made, specifying the amount of such allowance in each case. Presented 9th February, 1914.—*Mr. Chisholm (Antigonish).*
Not printed

61. Return to an Order of the House of the 16th March, 1914, for a copy of all correspondence, letters, telegrams, etc., in the year 1913, relating to the carrying of the mails between Grand River Falls and Grand River, county of Richmond, and the awarding of the contract to Malcolm McCuspic. Presented 9th February, 1915.—*Mr. Kyte.*
....*Not printed.*

CONTENTS OF VOLUME 28—*Continued.*

62. Return to an Order of the House of the 11th May, 1914, for a copy of all letters, telegrams, correspondence and memorials since the 1st day of November, 1911, relating to the post office at Johnstown, Richmond County, N.S., and to complaints against the present postmaster and recommendations for his dismissal. Presented 9th February, 1915.—*Mr. Kyte*.. .. .. .

CONTENTS OF VOLUME 28—*Continued.*

77. Return to an Order of the House of the 8th June, 1914, for a copy of all documents bearing on an application or applications made to the Superintendent General of Indian Affairs or the Department, on an amendment to the Indian Act to facilitate the sale of the Indian Reserve of Restigouche, Que., or on the acquiring otherwise of any portion or the whole of the said reserve for industrial or other purposes, and any answers given thereto. Presented 11th February, 1915.—*Mr. Marcil (Bonaventure).*
Not printed.

78. Return to an Order of the House of the 2nd February, 1914, for a return showing the names of the sailors who have been employed on the *Eureka* during the years 1910, 1911, 1912 and 1913. Presented 12th February, 1915.—*Mr. Boulay*.. .. .. ..*Not printed.*

79. Return to an Order of the House of the 15th April, 1914, for a return showing the total bond issue of the Canadian Northern Railway Company and its affiliated companies; and the total cost to date of the construction of the lines of railways comprising the Canadian Northern Railway system, including terminals, sidings, etc. Presented 12th February, 1915.—*Mr. Murphy*.. .. ..*Not printed.*

80. Return to an Order of the House of the 18th May, 1914, for a copy of all papers, documents, reports and evidence relative to the dismissal or proposed dismissal of W. A. Case of the Government Quarantine Service at Halifax, N.S. Presented 12th February, 1915.—*Mr. McLean (Halifax)* .. ..*Not printed.*

81. Return to an Order of the House of the 26th February, 1914, for a return showing:—1. The freight rates charged during the years 1912 and 1913, on wheat from Canadian ports to ports in the United Kingdom by the Canadian Pacific Railway Company's Steamship Lines, the Allan Steamship Line and the Canadian Northern Railway Company's Steamship Lines. 2. The profits made by the freight boats of the said several lines which carried wheat alone or with other freight. Presented 12th February, 1915. —*Sir James Aikins*.. .. ..*Not printed.*

82. Return to an Order of the House of the 16th February, 1914, for a copy of all reports, requests, petitions, memorials, letters, telegrams and other correspondence and documents relating to the removal, suspension or dismissal, by the management of the Intercolonial Railway, of Warren Carter and Frederick Avard, employees in the freight department of the Intercolonial Railway at Sackville, N.B.; and of all letters, telegrams and other correspondence in the Department of Railways and Canals, or in the railway offices at Moncton, or in any Department of Government, addressed to the Minister of Railways and Canals, or to any other member of the Government, or to any official of the Department of Railways and Canals, or of the Intercolonial Railway, by any person or persons in the county of Westmorland, N.B., in any manner relating to said employees and to the dispensing with their services, particularly of any letters sent to F. P. Brady, General Superintendent of the Intercolonial, by any party or parties in Sackville, N.B., or elsewhere, and of all replies to any such letters, correspondence or documents. Presented 12th February, 1915.—*Mr. Emmerson.*
Not printed.

83. Return to an Order of the House of the 23rd March, 1914, for a return showing:—1. What investigations and other work have been entrusted by the Government, or any Department thereof, to G. Howard Ferguson, member for the electoral division of the county of Grenville in the Legislative Assembly of the province of Ontario. 2. How much the said G. Howard Ferguson has been paid by the Government, or any Department thereof, for fees and disbursements since the 21st of September, 1911, and how much is still due and owing to him. 3. How much has been paid to the said G. Howard Ferguson by the Government or any Department thereof, since the 21st September, 1911, in connection with any other matter whatever. Presented 12th February, 1915.—*Mr. Proulx*.. .. ..*Not printed.*

84. Further Supplementary Return to an Order of the House of the 28th April, 1913, for a return showing a list of all the newspapers in Canada in which advertisements have been inserted by the Government, or any minister, officer or department thereof, between 10th October, 1911, and the present date, together with a statement of the gross amount paid therefor between the above dates to each of said newspapers or to the proprietors of the same. Presented 12th February, 1915.—*Mr. Sinclair*.. .. ..*Not printed.*

84*a*. Further Supplementary Return to an Order of the House of the 30th April, 1913, for a return showing a list of all the newspapers in Canada in which advertisements have been inserted by the Government, or any minister, officer or department thereof, between the 10th day of October, 1906, and 10th October, 1907, and between said dates in each of the years following up to the 10th October, 1911, together with a statement of the gross amount paid therefor for the years mentioned, to each of the said newspapers or the proprietors of the same. Presented 12th February, 1915.—*Mr. Thornton.*
Not printed.

CONTENTS OF VOLUME 28—*Continued.*

85. Partial Return to an Order of the House of the 4th March, 1914, for a return showing:—1. How many employees of the Federal Government of Canada, including all services and all departments, have been dismissed from 10th October, 1911, to the present date. 2. How many have resigned. 3. How many have deserted the service. 4. How many deserters have been punished. 5. How many new employees have been engaged or appointed by the present Government during the same period. Presented 12th February, 1915.—*Mr. Boivin*.. .. ..*Not printed.*

85*a*. Return to an Order of the House of the 4th March, 1914, for a return showing:—1. How many employees of the Federal Government of Canada, including all services and all departments, have been dismissed from 10th October, 1911, to the present date. 2. How many have resigned. 3. How many have deserted the service. 4. How many deserters have been punished. 5. How many new employees have been engaged or appointed by the present Government during the same period. Presented 4th March, 1915.—*Mr. Boivin*.. .. ..*Not printed.*

85*b*. Further Supplementary Return to an Order of the House of the 4th March, 1914, for a return showing:—1. How many employees of the Federal Government of Canada, including all services and all departments, have been dismissed from 10th October, 1911, to the present date. 2. How many have resigned. 3. How many have deserted the service. 4. How many deserters have been punished. 5. How many new employees have been engaged or appointed by the present Government during the same period. Presented 5th March, 1915.—*Mr. Boivin*.. .. ..*Not printed.*

85*c*. Further Supplementary Return to an Order of the House of the 4th March, 1914, for a return showing:—1. How many employees of the Federal Government of Canada, including all services and all departments, have been dismissed from 10th October, 1911, to the present date. 2. How many have resigned. 3. How many have deserted the service. 4. How many deserters have been punished. 5. How many new employees have been engaged or appointed by the present Government during the same period. Presented 12th March, 1915.—*Mr. Boivin*.. .. ..*Not printed.*

85*d*. Further Supplementary Return to an Order of the House of the 4th March, 1914, for a return showing:—1. How many employees of the Federal Government of Canada, including all services and all departments, have been dismissed from 10th October, 1911, to the present date. 2. How many have resigned. 3. How many have deserted the service. 4. How many deserters have been punished. 5. How many new employees have been engaged or appointed by the present Government during the same period. Presented 7th April, 1915.—*Mr. Boivin*.. .. ..*Not printed.*

86. Further Supplementary Return to an Order of the House of the 18th February, 1914, for a copy of all charges, complaints, memorials, correspondence and telegrams, not already produced, relating to officials in any department of the Government since 10th October, 1911, the number of officials dismissed, reports of investigations held in respect of such charges, items of expenditure and costs of each investigation, the names of persons appointed to office in the place of dismissed officials, and of all recommendations received in behalf of persons so appointed in the province of Prince Edward Island. Presented 12th February, 1915.—*Mr. Hughes (Kings, P.E.I.)*

Not printed.

87. Partial Return to an Order of the House of the 18th May, 1914, for a return showing in all cases in which Charles Seager, of Goderich, acted as Government Commissioner in the investigation of officials charged with partizanship, or other offences, from and including the year 1896 to the year 1900; and the names of all officials dismissed by reason of the reports of the said Charles Seager, the positions held by such officials, and when such dismissals took place; with a copy of the evidence taken in all such cases, together with the commissioners reports thereon, and also showing what fees were paid to the said Charles Seager for conducting such investigations. Presented 12th February, 1915.—*Mr. Clark (Bruce)*.. .. ..*Not printed.*

88. Return to an Order of the House of the 16th March, 1914, for a copy of all correspondence, letters, telegrams, complaints and of all other documents in any way referring to the operation of the salmon hatchery at North East Margaree, and the fish pond at Margaree Harbour from 1911 to date. Presented 15th February, 1915.—*Mr. Chisholm (Inverness)*.. .. ..*Not printed.*

89. Return to an Address to His Royal Highness the Governor General of the 11th May, 1914, for a copy of all letters, telegrams, Orders in Council, contracts, tenders, papers and other documents in possession of the Department of Public Works, and of the Department of Militia and Defence, relating to the construction of an armoury at Amherst, N.S. Presented 15th February, 1915.—*Mr. Sinclair*... .. ..*Not printed.*

90. Letters of the Honourable Louis P. Pelletier, M.P., and the Honourable Wilfrid B. Nantel, M.P., resigning their positions as Postmaster General and Minister of Inland Revenue, respectively, and letters of the Prime Minister in acknowledgment thereof. Presented by Sir Robert Borden, 15th February, 1915.. .. ..*Not printd.*

CONTENTS OF VOLUME 28—*Continued.*

91. Report of Board of Officers on boots supplied to the Canadian Expeditionary Force. Presented by Hon. Mr. Hughes, 15th February, 1915.. .. ..*Not printed.*

92. Regulations under "The Destructive Insect and Pest Act." Presented by Hon. Mr. Burrell, 16th February, 1915... .. ..*Not printed.*

93. Report on "The Agricultural Instruction Act," 1913-14, pursuant to Section 8 of the above named Act. Presented by Hon. Mr. Burrell, 16th February, 1915.
Printed for sessional papers only

93*a*. Supplementary Return to an Address to His Royal Highness the Governor General of the 9th February, 1914, for a copy of all arrangements made between the Government and the various provinces under the Agricultural Instruction Act. Presented 19th February, 1915.—*Sir Wilfrid Laurier*.. .. ..*Not printed.*

93*b*. Return to an Order of the House of the 20th April, 1914, for a copy of all documents, correspondence, letters, petitions, reports, etc., exchanged between Dr. C. C. James, Mr. J. C. Chapais and each of the Provincial Ministers of Agriculture, in connection with the distribution and the administration of the federal subsidy granted to the provinces for agricultural purposes since the granting of same. Presented 23rd February, 1915. —*Mr. Lapointe (Kamouraska)*.. .. ..*Not printed.*

94. Return to an Order of the House of the 11th February, 1914, for a copy of all telegrams, correspondence, instructions, recommendations, and other documents that passed between the Shellfish Fishery Commission of 1913, and the Department of Marine and Fisheries, from the date of the appointment of said Commission to 31st December, 1913, excluding such documents as have been printed in the published report of said Commission. Presented 16th February, 1915.—*Mr. Sinclair*.. .. ..*Not printed.*

95. Return to an Order of the House of the 16th March, 1914, for a copy of all correspondence, tenders, telegrams, complaints and of all other documents in any way referring to the collecting of spawn for the Margaree Lobster Hatchery during the years 1911-12, 1912-13 and 1913-14. Presented 16th February, 1915.—*Mr. Chisholm (Inverness)*.
Not printed.

96. Return to an Order of the House of the 10th February, 1915, for a return showing the amount of coal imported into Alberta, Saskatchewan and Manitoba, respectively, from the United States during the year 1914; also the amount of duty collected in each of the said provinces during the same year. Presented 16th February, 1915.—*Mr. Buchanan*... .. ..*Not printed.*

97. Copy of the Eighth Joint Report of the Commissioners for the Demarcation of the Meridian of the 141st Degree of West Lngitude. Presented by Hon. Mr. Roche, 18th February, 1915.. .. ..*Not printed.*

98. Return to an Order of the House of the 20th April, 1914, for a copy of the agreement between the Government of Canada and the Canadian Pacific Railway Company at the time the special land grant was made whereby the Canadian Pacific Railway Company were enabled to get their land grant in one block for the purpose of establishing their present irrigation system east of Calgary, province of Alberta. Presented 18th February, 1915.—*Mr. Burnham*.. .. ..*Not printed.*

99. Return to an Order of the House of the 23rd March, 1914, for a copy of all letters, telegrams and other documents in connection with the sale of any timber on Parry Island, Parry Sound District, and of advertisements, agreements for purchase and any other documents connected with such sale or grant of timber to any person or persons. Presented 18th February, 1915.—*Mr. Arthurs*.. .. ..*Not rpinted.*

100. Return to an Order of the House of the 11th February, 1914, for a return showing reasons for the dismissal of Mr. Larivière, Dominion Lands Agent at Girouard; the date of his appointment and of dismissal and salary at time of dismissal; also the name of agent appointed in his place, with date of appointment and salary. Presented 18th February, 1915.—*Mr. Oliver*.. .. ..*Not printed.*

101. Annual Return respecting Trade Unions under Chapter 125, R.S.C., 1906. Presented by Hon. Mr. Coderre, 18th February, 1915.. .. ..*Not printed.*

102. A detailed statement of all bonds or securities registered in the Department of the Secretary of State of Canada, since last return (21st January, 1914) submitted to the Parliament of Canada under Section 32 of Chapter 19, of the Revised Statutes of Canada, 1906. Presented by Hon. Mr. Coderre, 18th February, 1915.. .. .. *Not printed.*

CONTENTS OF VOLUME 28—*Continued.*

103. Return to an Order of the House of the 9th February, 1914, for a copy of all petitions, memorials, letters, telegrams, papers, and documents received by any department of the Government of Canada, or any Minister of the Crown from any company, corporation, person or persons, requesting the removal of any customs duties upon wheat or wheat products entering Canada, or protesting against any diminution or removal of such custom's duties, and any replies thereto. Presented 18th February, 1915.—*Mr. Maclean (Halifax)*.. .. ..*Not printed.*

104. Return to an Order of the House of the 20th April, 1914, for a copy of all correspondence, letters, documents or other papers relating to the cancellation of the entry of R. Bannatyne for the northwest ¼ of section 24, township 35, range 18, west of the 2nd meridian. Presented 19th February, 1915.—*Mr. Neely*.. .. ..*Not printed.*

105. Return to an Order of the House of the 16th February, 1914, for a return showing the name of the postmaster of the Parish of St. Romuald, county of Lévis, who, it is said, was dismissed from office since September, 1911, the reasons for such dismissal, the nature of the complaints made against him, the names of the parties who made those complaints, together with a copy of all correspondence and telegrams relating thereto, the name of the inquiring commissioner, and report of investigation, if any, and of all evidence taken at the investigation, the names of those who recommended the successor, names of the parties by whom the Government was represented at such investigation, with a detailed statement of all the accounts paid or to be paid by any department in connection with the aforesaid dismissal and investigation, the names of the parties who received any money or filed their accounts in connection with said investigation, and the amount awarded to or claimed by each of them. Presented 19th February, 1915.—*Mr. Bourassa*... .. ..*Not printed.*

106. Return showing lands sold by the Canadian Pacific Railway Company during the year which ended on the 30th September, 1914. Presented by Hon. Mr. Roche, 19th February, 1915.. .. ..*Not printed.*

107. Return to an Order of the House of the 10th June, 1914, for a return showing:—1. The amount of money sent through the post offices in the past five years outside Canada from the following Cape Breton post offices: Glace Bay, Caledonia Mines, Dominion No. 4, New Aberdeen, Bridgeford, Old Bridgeford, Reserve Mines, Sydney, Whitney Pier, Ashby, North Sydney, Sydney Mines, Florence, Dominion No. 6, and Port Marrien. 2. What countries was such money transmitted to. Presented 22nd February, 1915.—*Mr. Carroll*.. .. ..*Not printed.*

108. Return to an Order of the House of the 15th February, 1915, for a copy of all correspondence, telegrams and other documents in connection with the removal from the customs service at Lethbridge, Alberta, of Brown Pipes and A. R. Gibbons. Presented 23rd February, 1915.—*Mr. Buchanan*.. .. ..*Not printed.*

109. Return to an Order of the House of the 15th February, 1915, for a return giving the names of all the transports hired since 1st August, 1914, for the conveyance of troops, horses, stores and material to England, the name of each vessel owner, broker or other person through whom the vessel was chartered, the tonnage of each vessel, speed, rate paid per ton per week or month, minimum time for which engaged, date of agreement, date at which pay commenced, date at which pay ceased, and the total sum paid by the Government for hire and other charges. Presented 23rd February, 1915.—*Mr. Murphy*.. .. ..*Not printed.*

110. Return to an Order of the House of the 15th February, 1915, for a return showing:—1. How many transport wagons were purchased for the Second and Third Contingents? 2. From whom they were purchased, and the name of each person or firm? 3. How many were purchased from each? 4. What was the price paid per wagon? 5. If any tenders were asked? 6. If any tenders were received that were not accepted? 7. If so, what was the price tendered at? Presented 23rd February, 1915.—*Mr. Nesbitt.*
Not printed.

111. Return to an Order of the House of the 11th February, 1915, for a return showing:—1. How many persons have been made prisoners of war since the declaration of war between the Allies, Germany and Austria? 2. Where they have been kept captive? 3. What is the name of each place of detention, and the name of the officer in charge of such place of detention? Presented 23rd February, 1915.—*Mr. Wilson (Laval)*.
Not printed

111*a*. Return to an Order of the House of the 19th February, 1915, for a statement in detail of: The number of prisoners of war in this country; the number under parole; the number held in detention camps; the number of detention camps, where situated, how accessible, and the number of prisoners in each. The amount of cost to Canada in each of these camps, respectively, for subsistence, pay, clothing, transportation and supervision; the nature of work done by prisoners, and the total value of same to date. Presented 1st April, 1915.—*Mr. Clark (Red Deer)*.. .. ..*Not printed.*

CONTENTS OF VOLUME 28—*Continued.*

112. Return to an Order of the House of the 15th February, 1915, for a copy of all letters, telegrams, minutes of investigation and other documents relating to the dismissal of James Brennan, fireman Intercolonial Railway at Stellarton. Presented 25th February, 1915.—*Mr. Macdonald*.. .. .. .

CONTENTS OF VOLUME 28—*Continued.*

120. Return to an Order of the House of the 15th February, 1915, for a return showing whether any exportations of food-stuffs have been made since 1st August last, to European countries, other than the United Kingdom, France and Belgium, and if so, their nature and what countries. Presented 25th February, 1915.—*Mr. Cockshutt.*
Not printed.

121. Return to an Order of the House of the 11th February, 1915, for a copy of the petition, papers, documents and letters in connection with the incorporation of the Dominion Trust Company, incorporated by Special Act of the Parliament of Canada in 1912, being Chapter 89 of 2 George V. Presented 25th February, 1915.—*Mr. Proulx.*
Not printed.

121*a*. Return to an Order of the House of the 11th February, 1915, for a copy of all the correspondence exchanged between the Department of Justice and the Government of the province of British Columbia, or any of its members, with regard to a certain Act passed by the Legislature of the said province in 1913, being Chapter 89 of 2 George V., entitled: "An Act respecting the Dominion Trust Company." Presented 4th March, 1915.—*Mr. Proulx*.. .. .. .

CONTENTS OF VOLUME 28—*Continued.*

128*b*. Return of Orders in Council which have been published in the *Canada Gazette* and in the British Columbia *Gazette*, between 11th April, 1914, and 10th December, 1914, in accordance with provisions of Subsection (*d*) of Section 38 of the regulations for the survey, administration, disposal and management of Dominion Lands within the 10-mile railway belt in the province of British Columbia. Presented by Hon. Mr. Roche, 12th March, 1915.. .. .. .

CONTENTS OF VOLUME 28—*Continued.*

139a. Return to an Order of the House of the 24th February, 1915, for a copy of all letters, papers and documents relating to the dismissal of the following officers in Shelburne County, N.S.: Wm. L. Smith, lightkeeper, Baccaro, N.S.; J. A. Arechia, harbour master, Lower Wood Harbour, and J. C. Morrison, harbour master, Shelburne, N.S. Presented 16th March, 1915.—*Mr. Law*.. .. ..*Not printed.*

140. Return to an Order of the House of the 9th March, 1914, for a return showing:—1. The amounts of money expended by this Government in the county of Portneuf from the 1st of July, 1896, to the 21st September, 1911. 2. The nature of the work done in each parish. 3. In what year such work was executed, and what amount was expended in each case. Presented 4th March, 1915.—*Mr. Sevigny*.. .. ..*Not printed.*

141. Return to an Order of the House of the 22nd February, 1915, for a copy of all papers, petitions, declarations, affidavits, sworn statements, requests, certificates and all other documents in connection with the naturalization of F. P. Gutelius, General Manager of the Intercolonial Railway. Presented 4th March, 1915.—*Mr. Gauvreau*.. ..*Not printed.*

142. Report of the delegates appointed to represent the Government of Canada at the Eighth International Purity Congress, held under the auspices of the World's Purity League, at Kansas City, Mo., November 5th-9th, 1914. Presented by Sir Robert Borden, 4th March, 1915. *Not printed.*

143. Return to an Address to His Royal Highness the Governor General of the 22nd February, 1915, for a copy of all complaints to the Government of the killing of one American citizen and the shooting of another by militia men, in the waters of Lake Erie, and of all correspondence with regard to the same with the British Embassy and American authorities. Presented 5th March, 1915.—*Sir Wilfrid Laurier*.. .. .. ..*Not printed.*

144. Return to an Order of the House of the 24th February, 1915, for a return showing the amounts in detail paid to Ward Fisher, of Shelburne, N.S., fishery inspector, for the years 1912 and 1913, for salary, office expenses, travelling expenses, and all other expenses. Presented 5th March, 1915.—*Mr. Law*.. .. ..*Not printed.*

145. Return to an Order of the House of the 15th February, 1915, for a return showing the names and addresses of all persons in Yarmouth County to whom the bounty under the Fenian Raid Volunteer Bounty Act has been paid; the names and addresses of all persons from said county whose applications have been rejected, and a list giving names and addresses of all applicants from said county whose applications have not yet been disposed of. Presented 5th March, 1915.—*Mr. Law*.. .. ..*Not printed.*

146. Return to an Order of the House of the 19th February, 1915, for a return showing the names and post office addresses of all persons in Guysborough County, N.S., to whom the bounty under the Fenian Raid Volunteer Bounty Act has been paid; the names and post office addresses of all persons whose applications have been rejected, and the reason for such rejections; also the names and post office addresses of all persons whose applications have been received but have not yet been paid, distinguishing between those who have been dealt with and allowed, and such applications as have been received but not yet considered, if any. Presented 5th March, 1915.—*Mr. Sinclair.* *Not printed.*

147. Return to an Order of the House, of the 12th February, 1915, for a return showing:—1. How many applications for seed grain have been received from residents of the three prairie provinces since June, 1914? 2. How many bushels of grain were included in the applications? 3. How many acres of land were to be seeded by the grain applied for? 4. How many bushels of wheat, oats and barley, respectively, the Government has on hand with which to meet the applications? 5. If arrangements have been made under which the several Provincial Governments will assist in meeting the needs of the settlers for seed grain? Presented 8th March, 1915.—*Mr. McCraney*.. ..*Not printed.*

148. Return to an Order of the House, of the 2nd February, 1914, for a return showing the number of ships chartered by the Government or any department thereof since October, 1911, to go to Hudson's Bay or James Bay; the name of each and the tonnage; the name and residence of each commanding officer; what cargo each carried, and what portion was landed, and where, what was lost and where, and what returned; with the values in each case. Presented 8th March, 1915.—*Mr. Graham*.. .. .. ..*Not printed.*

148a. Return to an Order of the House of the 3rd March, 1915, for a return showing the number of ships employed by the Railway Department, the number of men hired on vessels and on shore, and the amount expended for supplies, men and transportation from 31st March, 1914, to 31st December, 1914, in connection with the Hudson Bay Railway expenditures. Presented 22nd March, 1915.—*Mr. Macdonald*..*Not printed.*

149. Return to an Address to His Royal Highness the Governor General, of the 9th February, 1914, for a copy of all correspondence since the 1st January last with regard to the calling of an Imperial Conference on the subject of naval defence. Presented 8th March, 1915.—*Sir Wilfrid Laurier*.. .. ..*Not printed.*

CONTENTS OF VOLUME 28—*Continued.*

150. Return to an Order of the House, of the 11th February, 1915, for a return showing the names and addresses of all persons in Antigonish County to whom the bounty under the Fenian Raid Volunteer Bounty Act has been paid; the names and addresses of all persons from said county whose applications have been rejected, and a list giving names and addresses of all applications from said county whose applications have not yet been disposed of. Presented 8th March, 1915.—*Mr. Chisholm (Antigonish).*
Not printed.

151. Return to an Order of the House, of the 3rd March, 1915, for a return showing:—1. Who were the different officers commissioned to the 17th Nova Scotia Regiment at Valcartier before they sailed for England? 2. Who are now the commissioned officers of said regiment. Presented 8th March, 1915.—*Mr. Macdonald*.. .. ..*Not printed.*

152. Return to an Order of the House, of the 9th February, 1915, for a copy of all accounts of the transfer of the storm signal at Shippigan, N.B., from its former position on land to the public wharf, showing the total cost of said transfer during the months of October and November in 1911. Presented 8th March, 1915.—*Mr. Turgeon.*
Not printed.

153. Return to an Order of the House, of the 4th May, 1914, for a copy of all correspondence, telegrams, petitions, including the signatures of such petitions, and all other documents and papers in the possession of the Department of Trade and Commerce, or the minister of said department, or in the possession of the Prime Minister, relating to any application made between 1st November, 1913, and date hereof by parties in Nova Scotia asking for Government assistance towards the transportation of fresh fish between ports in Nova Scotia and the United States. Presented 9th March, 1915.—*Mr. Sinclair.*
Not printed.

154. Statement of Mr. H. C. Crowell, staff correspondent of the Halifax *Chronicle*, and correspondence in connection with statements appearing in the press referring to alleged ill-treatment of the 17th Regiment of Nova Scotia, at Salisbury Plains. Presented by Sir Robert Borden, 9th March, 1915.. .. ..*Not printed.*

155. Return to an Order of the House, of the 3rd March, 1915, for a return showing:—1. The estimated cost of fitting up the works of the Canadian Car and Foundry Company, Limited, at Amherst, N.S., for military purposes. 2. The rent or other remuneration being paid, or will be paid, this company for the use of its buildings. 3. Who are to supply the military provisions, including food for men, coal for heating and cooking, and food and other supplies for horses quartered on these premises, and at what prices. 4. Whether it is true that forms for tendering for such military supplies could only be obtained from the office of the sitting member for Cumberland County, and in several cases forms of tender were refused to applicants. 5. Whether the Government is aware that in the case of the supplying of hay, as alleged, not only Liberals were not allowed to tender for same, but supporters of the Government were informed they would not secure any part of the contract, if any of the hay to be supplied was to be purchased from a Liberal. Presented 11th March, 1915.—*Mr. Copp*.. .. .. ..*Not printed.*

156. Return to an Address to His Royal Highness the Governor General, of the 1st March, 1915, for a copy of all correspondence of the Imperial authorities on the subject of loans from the Imperial Treasury to the Canadian Government. Presented 11th March, 1915.—*Mr. Maclean (Halifax)*.. .. ..*Not printed.*

157. Return to an Order of the House of the 3rd March, 1915, for a copy of all correspondence, recommendations, letters and telegrams relating to the appointment of H. W. Ingraham as Assistant Registrar of Alien Enemies at Sdyney, N.S., and to his dismissal from the said office. Presented 12th March, 1915.—*Mr. Kyte*.. .. ..*Not printed.*

158. Return to an Address to His Royal Highness the Governor General of the 11th February, 1915, for a copy of all correspondence relating to the purchase of, and payment by the Government for two submarines authorized by Order in Council dated the 7th August, 1914, and of any other Order or Orders in Council relating thereto; and also of all reports received by the Government or any department thereof referring to said submarines. Presented 12th March, 1915.—*Mr. Pugsley* .. ..*Printed for distribution only.*

158*a*. Supplementary Return to an Address to His Royal Highness the Governor General, of the 11th February, 1915, for a copy of all correspondence relating to the purchase of, and payment by the Government for two submarines authorized by Order in Council dated the 7th August, 1914, and of any other Order or Orders in Council relating thereto; and also of all reports received by the Government or any department thereof referring to said submarines. Presented 15th March, 1915.—*Mr. Pugsley.*
Printed for distribution only.

CONTENTS OF VOLUME 28—*Continued.*

158*b*. Further Supplementary Return to an Address to His Royal Highness the Governor General, of the 11th February, 1915, for a copy of all correspondence relating to the purchase of, and payment by the Government for two submarines authorized by Order in Council dated the 7th August, 1914, and of any other Order or Orders in Council relating thereto; and also of all reports received by the Government, or any department thereof, referring to said submarines. Presented 24th March, 1915.—*Mr. Pugsley.*
Printed for distribution only.

159. Return to an Order of the House of the 19th February, 1915, for a copy of all correspondence, telegrams, petitions, letters and all other documents in any way referring to the dismissal of Mr. Mallet, captain of the life-boat in the life-saving station at Cheticamp, and the appointment of his successor. Presented 12th March, 1915.—*Mr. Chisholm (Antigonish)*.. .. .. .

CONTENTS OF VOLUME 28—*Continued.*

170. Return to an Order of the House of the 11th February, 1915, for a copy of all petitions, letters, telegrams and correspondence regarding a proposed daily mail service between Lower South River and South Side Harbour, Antigonish County, and improved postal accommodation for the residents of the last-named district. Presented 17th March, 1915.—*Mr. Chisholm (Antigonish)*.. .. ..*Not printed.*

171. Return to an Order of the House of the 1st March, 1915, for a copy of all letters, documents, telegrams, recommendations, petitions and other papers received by the Post Office Department since 1st January, 1914, relating to the contract for carrying the mails between Guysborough and Canso, N.S. Presented 18th March, 1915.—*Mr. Sinclair*.. .. ..*Not printed.*

172. Return to an Order of the House of the 22nd February, 1915, for a return showing:1. The total number of employees, both permanent and temporary, at the following post offices: Montreal, Toronto, Winnipeg, Halifax, Quebec, St. John, N.B., and Vancouver. 2. The total amount of salaries paid in each case. 3. The total number of employees, and the amount of salaries paid in the above offices on the 1st of October, 1911. Presented 18th March, 1915.—*Mr. Lemieux*.. .. ..*Not printed.*

173. Return to an Order of the House of the 19th February, 1915, for a copy of all correspondence, telegrams, letters, petitions and documents of all kinds in any way referring to a proposed change in the mail route from Inverness railway station to Margaree Harbour. Presented 18th March, 1915.—*Mr. Chisholm (Inverness)*.. ..*Not printed.*

174. Return to an Order of the House of the 8th March, 1915, for a return showing:—1. From how many firms or individuals the Government, or any department thereof, has ordered soldiers uniforms since the 1st of July, 1914. 2. The names of these firms. 3. How many Oliver equipments have been ordered from each firm. 4. How many of these uniforms each firm has delivered up to date. 5. How many each firm has yet to deliver. 6. The price each firm is receiving for these uniforms. Presented 18th March, 1915.—*Mr. Murphy*.. .. ..*Not printed.*

175. Return to an Order of the House of the 8th March, 1915, for a return showing:—1. From how many firms or individuals the Government, or any department thereof, has ordered Oliver equipments since the 1st of July, 1914? 2. The names of these firms? 3. How many Oliver equipments have been ordered from each firm? 4. How many each firm has delivered up to date? 5. How many each firm has yet to deliver? 6. The price each firm is receiving for these Oliver equipments? Presented 18th March, 1915.—*Mr. Murphy*.. .. ..*Not printed.*

176. Return to an Order of the House of the 11th March, 1915, for a copy of all letters, correspondence, etc., relating to the appointment of William Gore Foster, of Dartmouth, N.S., to the position of Inspector of Indian Reserves. Presented 18th March, 1915.—*Mr. Carroll*.. .. ..*Not printed.*

177. Return to an Order of the House of the 15th February, 1915, for a copy of all letters, telegrams, correspondence, leases, and other documents relating to the cutting of lumber by Mr. B. F. Smith, and others, from the so-called Tobique Indian Reserve in the province of New Brunswick since the twelfth day of March, A.D. 1914, and also of all agreements, offers and promises made either by the said B. F. Smith or the Department of Indian Affairs, with reference to the sale or disposal of any of the said Tobique Indian Reserve since the said date, or any logs or lumber cut thereon. 2. Also a statement of all lumber cut by the said B. F. Smith from the said reserve, the rates of stumpage charged, and the amounts actually paid thereon from the first day of January, 1912, down to the date hereof. Presented 18th March, 1915.—*Mr. Carvell.*
Not printed.

178. Return to an Order of the House of the 8th March, 1915, for a return showing:—1. The number of customs officers employed at the customs port of Masonville, Quebec, on 20th September, 1911. 2. The names of these officers. 3. The salary each one received. 4. The total amount of salaries paid the officers at this port. 5. The number of customs officers employed at the port of Masonville at the present time. 6. The names of these officers. 7. The salary each one receives. 8. The total amount of salaries paid to the officers at this port. Presented 18th March, 1915.—*Mr. Kay*... ..*Not printed.*

179. Return to an Order of the House of the 8th March, 1915, for a return showing:—1. The number of customs officers employed at the customs port of Highwater, Quebec, on 20th September, 1911. 2. The names of these officers. 3. The salary each one received. 4. The total amount of salaries paid the officers at this port. 5. The number of customs officers employed at the port of Highwater at the present time. 6. The names of these officers. 7. The salary each one receives. 8. The total amount of salaries paid to the officers at this port. Presented 18th March, 1915.—*Mr. Kay*... ..*Not printed.*

CONTENTS OF VOLUME 28—*Continued.*

180. Return to an Order of the House of the 8th March, 1915, for a return showing:—1. The number of customs officers employed at the customs port of Abercorn, Quebec, on 20th September, 1911. 2. The names of these officers. 3. The salary each one received. 4. The total amount of salaries paid the officers at this port. 5. The number of customs officers employed at the port of Abercorn at the present time. 6. The names of these officers. 7. The salary each one receives. 8. The total amount of salaries paid to the officers at this port. Presented 18th March, 1915.—*Mr. Kay*... ..*Not printed.*

181. Return to an Order of the House, of the 1st March, 1915, for a copy of all petitions, letters, communications and other documents relating to or bearing upon the dismissal of Leonard Hutchinson, chief keeper at Dorchester penintentiary. Presented 18th March, 1915.—*Mr. Copp*.. .. ..*Not printed.*

182. Return to an Order of the House of the 22nd February, 1915, for a copy of all letters, telegrams and papers generally concerning the proposed construction of a bridge to connect Isle Perrot with the mainland at Vaudreuil. Presented 18th March, 1915.—*Mr. Boyer*... .. ..*Not printed.*

182*a*. Return to an Order of the House of the 22nd February, 1915, for a copy of all letters, telegrams and papers generally concerning the proposed construction of a bridge between the Island of Montreal and the Mainland at Vaudreuil. Presented 18th March, 1915.—*Mr. Boyer* .. ..*Not printed.*

183. Return to an Order of the House of the 22nd February, 1915, for a return showing:—1. What properties have been acquired by the Government in the City of Regina since 21st September, 1911? 2. The descriptions of such properties by metes and bounds? 3. For what purposes such properties were acquired? 4. From whom such properties were purchased? 5. The total price and the price per foot paid for each property? 6. If any such property was acquired by expropriation, what tribunal determined the price to be paid for any property so expropriated? 7. The dates on which any such properties were acquired? Presented 18th March, 1915.—*Mr. Martin* (*Regina*).

184. Return to an Order of the House of the 19th February, 1915, for a copy of all letters, telegrams, memoranda, pay-lists, recommendations and any other documents whatsoever in any wise appertaining to the construction of a wharf at Lower Burlington, in the County of Hants. Presented 18th March, 1915.—*Mr. Chisholm* (*Inverness*). *Not printed.*

185. Return to an Order of the House of the 24th February, 1915, for a copy of pay-rolls and all correspondence and vouchers in connection with the repairs to Jordan breakwater, Shelburne county, for which Leander McKenzie was contractor of works or foreman. Presented 18th March, 1915.—*Mr. Law* .. ..*Not printed.*

186. Return to an Order of the House of the 24th February, 1915, for a copy of all letters, telegrams, correspondence and pay-rolls in connection with repairs and extension of breakwater at Bluff Head, Yarmouth county, N.S., during year 1914. Presented 18th March, 1915.—*Mr. Law*.. .. ..*Not printed.*

187. Return to an Order of the House of the 22nd February, 1915, for a return showing the amounts expended by the Public Works Department in the County of Inverness each year from 1896 down to 1915. Presented 18th March, 1915.—*Mr. Chisholm* (*Inverness*).. .. ..*Not printed.*

188. Return to an Order of the House of the 24th February, 1915, for a copy of all letters, telegrams, correspondence and pay-sheets in connection with the repairs and other work on the breakwater at Sandford, Yarmouth County, N.S., during the year 1914. Presented 18th March, 1915.—*Mr. Law*.. .. ..*Not printed.*

189. Return to an Order of the House of the 1st March, 1915, for a copy of all papers, letters, petitions and other documents relating to a mail contract with David D. Heard & Sons, between Whitby and Grand Trunk Railway station, or with one John Gimblet, Whitby. Presented 19th March, 1915.—*Mr. Pardee*.. .. ..*Not printed.*

190. Copies of Reports of the Committee of the Privy Council, approved by His Royal Highness the Governor General, relating to certain advances made to the Canadian Northern Railway Company and the Grand Trunk Pacific Railway Company, respectively, together with copies of agreements made between the said companies and His Majesty. Presented by Hon. Mr. White, 19th March, 1915.. .. ..*Not printed.*

191. Return to an Order of the House of the 11th February, 1915, for a copy of all tenders received by the Post Office Department for the mail service between Caraquet and Tracadie, Gloucester County, N.B., on the 15th day of January last, with the names of the tenderers, the respective amounts of the tenders, and the name of the new contractor. Presented 19th March, 1915.—*Mr. Turgeon*.. .. ..*Not printed.*

CONTENTS OF VOLUME 28—*Continued.*

192. Return to an Order of the House of the 8th March, 1915, for a return showing:—1. The fractional areas of homestead lands or otherwise in the province of Saskatchewan sold in the year 1914. 2. The name of the purchaser, and the price paid in each case. Presented 22nd March, 1915.—*Mr. Martin (Regina)*.. .. ..*Not printed.*

193. Return to an Order of the House of the 25th February, 1915, for a return showing, in reference to the answer to question No. 6 of 9th February, and answered 15th February as per page 161 unrevised *Hansard*, the cost of furnishing the Government offices in each of the said buildings. Presented 22nd March, 1915.—*Mr. Turriff.*
Not printed.

194. Return to an Order of the House of the 1st March, 1915, for a return showing the amount of railway subsidies paid in the county of Inverness since 1896, to date, and the dates on which such subsidies were paid. Presented 22nd March, 1915.—*Mr. Chisholm (Inverness)*.. .. ..*Not printed.*

195. Return to an Order of the House of the 1st March, 1915, for a copy of all letters, papers, telegrams and other documents relating to the purchase or lease of the railway from New Glasgow to Thorburn, in the county of Pictou, known as the Vale Railway, from the Acadia Coal Company, since January, 1911, to date. Presented 22nd March, 1915.—*Mr. Macdonald*.. .. ..*Not printed.*

196. Return to an Order of the House of the 1st March, 1915, for a copy of all papers, letters, telegrams, correspondence, contracts, etc., in connection with the sale of the hay grown or the lease of certain tracts of land belonging to the Intercolonial Railway, upon which hay is grown, and which are contiguous to the properties of Charles Lavoie, Cléophas Leclerc and Joseph Parent of the Parish of Bic, county of Rimouski. Presented 22nd March, 1915.—*Mr. Lapointe (Kamouraska)*.. .. ..*Not printed.*

197. Return to an Order of the House of the 3rd March, 1915, for a copy of all letters, papers, telegrams, evidence taken at investigations, reports and all other documents relating to the suspension or other action in regard to the charge of drunkeness against Newton Hopper, conductor on the Intercolonial Railway, and to his subsequent reinstatement. Presented 22nd March, 1915.—*Mr. Macdonald*.. .. ..*Not printed.*

198. Return to an Order of the House of the 1st March, 1915, for a copy of all letters, telegrams and other papers relating to the dismissal of Bruce Wiswell, as sectionman on the Intercolonial Railway at Stellarton, Nova Scotia. Presented 22nd March, 1915.—*Mr. Macdonald*.. .. ..*Not printed.*

199. Return to an Order of the House of the 22nd February, 1915, for a return showing:—1. The inward tonnage freight, and also the outward tonnage freight respectively, at Loggieville station of the Intercolonial Railway for each month of 1914, and also for the month of January, 1915. 2. The inward tonnage freight, and the outward tonnage freight at Chatham station, on the Intercolonial Railway for each month of 1914, and also for the month of January, 1915. 3. The inward tonnage freight, and the outward tonnage freight at Newcastle station on the Intercolonial Railway for each month of 1914, and also for the month of January, 1915. 4. The local and through passenger traffic to and through each of the above stations, respectively, during each of the months above mentioned. Presented 22nd March, 1915.—*Mr. Loggie.*
Not printed

200. Return to an Order of the House of the 15th February, 1915, for a copy of all letters, telegrams and correspondence had by Margaret Lynch, or any person representing her, with reference to the expropriation of certain land belonging to the said Margaret Lynch in the city of Fredericton, province of New Brunswick, by the Intercolonial Railway, and also of all letters, telegrams and correspondence had with F. P. Gutelius or any other official of the Intercolonial Railway with reference thereto. Presented 22nd March, 1915.—*Mr. Carvell*.. .. ..*Not printed.*

201. Return to an Order of the House of the 3rd March, 1915, for a copy of all documents bearing on the payment made to C. R. Scoles, New Carlisle, Quebec, in July, 1914, of balance of subsidy voted to the Atlantic and Lake Superior Railway on the recommendation of the Financial Comptroller. Presented 22nd March, 1915.—*Mr. Marcil.*
Not printed.

202. Return to an Order of the House of the 1st March, 1915, for a copy of all letters, telegrams, correspondence and reports relating to the purchase of the New Brunswick and Prince Edward Island Railway, extending from Sackville to Cape Tormentine, county of Westmorland. Presented 22nd March, 1915.—*Mr. Copp*.. .. ..*Not printed.*

203. Return to an Order of the House of the 1st March, 1915, for a copy of the tariff on flour shipments now in force on the Quebec, Oriental Railway and the Atlantic, Quebec and Western Railway. Presented 22nd March, 1915.—*Mr. Marcil*.. .. ..*Not printed.*

CONTENTS OF VOLUME 28—*Continued.*

204. Return to an Order of the House of the 22nd February, 1915, for a copy of all petitions, correspondence, complaints, reports and other documents relating to the dismissal of Alfred H. Bonnyman, postmaster of Mattatall Lake, in the county of Colchester, N.S. Presented 24th March, 1915.—*Mr. Sinclair*.. .. ..*Not printed.*

205. Return to an Address to His Royal Highness the Governor General, of the 1st March, 1915, for a copy of all correspondence, documents, charges, evidence, findings and Orders in Council in reference to the dismissal of John Thomas, postmaster at Hammond's Plain, Halifax County, N.S. Presented 24th March, 1915.—*Mr. Maclean (Halifax)*.. .. ..*Not printed.*

205*a*. Supplementary Return to an Address to His Royal Highness the Governor General, of the 1st March, 1915, for a copy of all correspondence, documents, charges, evidence, findings and Orders in Council in reference to the dismissal of John Thomas, postmaster at Hammond's Plain, Halifax County, N.S. Presented 8th April, 1915.—*Mr. Maclean (Halifax)*... .. ..*Not printed.*

206. Certified copy of a Report of the Committee ofthe Privy Council, approved by His Royal Highness the Governor General, with reference to the question of providing adequate pensionary assistance for officers and men disabled or partially disabled on active service or for the dependents of such officers and men should they be killed on active service. Presented by Sir Robert Borden, 24th March, 1915... .. .. *Not printed.*

207. Return to an Order of the House of the 8th March, 1915, for a return showing:—1. From how many firms or private individuals the Government, or any department of the Government has ordered saddles since the 1st of July, 1914? 2. The names of these firms? 3. How many saddles have been ordered from each firm? 4. How many saddles each firm has delivered up to date? 5. How many saddles each firm has yet to deliver? 6. The price each firm is receiving for these saddles? Presented 26th March, 1915.—*Mr. Murphy*.. .. ..*Not printed.*

208. Return to an Order of the House of the 8th March, 1915, for a copy of all correspondence, letters, telegrams and other documents relating to the dismissal of Mr. P. B Hurlbert, postmaster at Springdale, Yarmouth County, N.S., and the removal of the office. Presented 30th March, 1915.—*Mr. Law*.. .. ..*Not printed.*

209 Return to an Order of the House of the 8th March, 1915, for a copy of all letters, petitions, telegrams and correspondence between the Hon. L. P. Pelletier, ex-Postmaster General and any person or persons of the county of Lévis, which during the month of April, 1912, had any connection with the appointment of G. A Marois to a position in the customs office at Quebec, and the appointment of J. E. Gingras as postmaster of St. Romuald and Etchemin. Presented 30th March, 1915.—*Mr. Bourassa.*
Not printed.

210. Return to an Order of the House of the 22nd February, 1915, for a copy of all letters, telegrams, petitions and documents of all kinds in possession of the Post Office Department, referring in any way to the conduct of the postmaster at Grand Etang since his appointment until the present date. Presented 0th March, 1915.—*Mr. Chisholm (Inverness)*.. .. ..*Not printed.*

211. Return to an Order of the House of the 1st March, 1915, for a copy of all telegrams, letters, papers, documents, evidence and reports, in connection with the dismissal of Charles H. Marshall as postmaster at Nanton, Alberta. Presented 30th March, 1915.—*Mr. Warwick*.. .. ..*Not printed.*

212. Return to an Order of the House of the 1st March, 1915, for a copy of the report of the officer in charge of the lobster hatchery at Port Daniel West, and of the report of the inspection thereof for the season 1914. Presented 31st March, 1915.—*Mr. Marcil.*
Not printed.

213. Return to an Order of the House of the 24th February, 1915, for a copy of all correspondence, petitions, documents, etc., in connection with a petition of Donald Williams and others in respect to the regulation of fish traps in Green Harbour and vicinity. Presented 31st March, 1915.—*Mr. Law*.. .. ..*Not printed.*

214. Return to an Order of the House of the 9th February, 1915, for a copy of all correspondence, petitions, departmental recommendations and other papers and documents in the Department of Marine and Fisheries relating to the definition of a "coasting voyage," as defined in the Canada Shipping Act since the revision of the statutes in 1886. Presented 1st April, 1915.—*Mr. Sinclair*.. .. ..*Not printed.*

215. Return to an Order of the House of the 1st March, 1915, for a copy of all advertisements, tenders, contracts, vouchers, letters, documents, etc., relating to the establishment of the ferry service between the City of Halifax and Dartmouth, N.S., for the employees of the Marine and Fisheries Department at Halifax, N.S. Presented 1st April, 1915.—*Mr. Maclean (Halifax)*.. .. ..*Not printed.*

CONTENTS OF VOLUME 28—*Continued.*

216. Return to an Order of the House of the 24th February, 1915, for a copy of all pay-rolls, vouchers in detail, correspondence and all other documents in connection with the following public wharves in Shelburne; breakwater or wharf at East Green Harbour; shed on public wharf at Shelburne, and repairs to Gunning Cove wharf. Presented 1st April, 1915.—*Mr. Law*.. .. .. .

CONTENTS OF VOLUME 28—*Continued.*

228. Return to an Address to His Royal Highness the Governor General of the 19th February, 1915, for a copy of all Orders in Council, letters and telegrams exchanged between the Dominion Government and the several provinces, concerning the proposed transfer of fisheries in tidal waters from the Provincial to the Federal control. Presented 1st April, 1915.—*Mr. Lemieux*.. .. .. .

CONTENTS OF VOLUME 28—*Continued.*

239. Return to an Address to His Royal Highness the Governor General, of the 23rd February, 1915, for a copy of all letters, telegrams, reports, recommendations, Orders in Council and all other documents and papers in connection with rewards to the officers and crews of steamers *John L. Cann* and *Westport III*, for their heroic efforts in saving the passengers and crews of ss. *Cobequid*, wrecked on Trinity Lodge, 13th January, 1914. Presented 7th April, 1915.—*Mr. Law*.. .. ..*Not printed.*

240. Return to an Order of the House of the 29th March, 1915, for a copy of all documents, letters, telegrams, reports, etc., relating to the dismissal of Alexandre Blais, of the city of Lévis, from the position of customs officer at Bradore Bay, and the appointment of his successor or successors. Presented 7th April, 1915.—*Mr. Bourassa*.. ..*Not printed.*

241. A Return to an Address of the Senate dated 18th March, 1915, for:—1. A return showing all appointments to the Civil Service, Department of the Interior, in that area contained in the present constituencies of Medicine Hat and Macleod, giving names, date of appointment, how appointed, and salaries from the year 1896 to the present date. 2. Also, all vacancies by death, resignation or dismissal, giving name, date, length of service and cause of dismissal in the same area and during the same period.—(*Senate*). *Not printed.*

242. Return to an Order of the House of the 1st March, 1915, for a copy of charges made against J. Herbert Sweetman, customs officer at Port Daniel Centre, Quebec, which brought about his dismissal; and also of charges against Velson Horie, lighthouse keeper at Port Daniel West, Quebec, which brought about his dismissal. Presented 8th April, 1915.—*Mr. Marcil (Bonaventure)*.. .. .. *Not printed.*

243. Return to an Order of the House of the 22nd February, 1915, for a copy of all correspondence, recommendations, petitions, contracts, tenders and other papers and documents in any way connected with the letting of the contract for carrying the mails between Guysborough and Erinville, N S. Presented 8th April, 1915.—*Mr. Sinclair.* *Not printed.*

244. Return to an Order of the House of the 10th March, 1915, for a copy of all reports, petitions, letters, telegrams and other documents in connection with the dismissal of W. M. Thomson from the postmastership at Fort Qu'Appelle, and of any petition or petitions for his reinstatement, and of all correspondence in connection therewith. Presented 8th April, 1915.—*Mr. Thomson (Qu'Appelle)*.. .. ..*Not printed.*

245. Return to an Order of the House of the 22nd March, 1915, for a copy of all letters, telegrams, correspondence and petitions received in the Post Office Department, in any way referring to the calling of tenders for the Antigonish-Sherbrooke mail service, which tenders were opened or due at the Post Office Department on the 11th December last; and of all representations or requests, recommending or suggesting that new tenders should be invited as was done early in February last. Presented 8th April, 1915. —*Mr. Chisholm (Inverness)*... .. ..*Not printed.*

246. Return to an Order of the House of the 3rd March, 1915, for a copy of all letters, telegrams, papers and other documents in regard to a proposed rural mail delivery service between Pictou and Saltsprings, Pictou county, and as to the arrangements for the existing service between those points. Presented 8th April, 1915.—*Mr. Macdonald.* *Not printed.*

247. Return to an Address of His Royal Highness the Governor General, of the 1st March, 1915, for a copy of all letters, telegrams, reports, recommendations, Orders in Council, and all other documents and papers whatsoever relating to or in any wise connected with the establishment of rural mail routes and deliveries from Bridgetown to Granville Ferry, county of Annapolis, and especially of all letters, telegrams, reports, recommendations and documents relating to the closing of the post offices at Belleisle, Upper Granville, and the establishment of the post office at Granville Centre, all in the county of Annapolis. Presented 8th April, 1915.—*Mr. Macdonald*.. .. ..*Not printed.*

248. Return to an Order of the House of the 22nd February, 1915, for a copy of all telegrams, letters, reports, petitions and all other documents in any way referring to the proposed line of railway from Orangedale to Cheticamp. Presented 9th April, 1915.—*Mr. Chisholm (Inverness)*.. .. ..*Not printed.*

249. Return to an Order of the House of the 11th March, 1915, for a copy of all documents, investigations, reports, correspondence, etc., relating to the burning of certain buildings belonging to the Trois Pistoles Pulp and Lumber Company and to André Leblond, near Tobin station, on the Intercolonial Railway. Presented 9th April, 1915.—*Mr. Lapointe (Kamouraska)*.. .. ..*Not printed.*

250. Return to an Order of the House of the 18th March, 1915, for a return showing the names of all officials, assistants and clerks, employed in the railway offices at Moncton, N.B., and the salary paid to each; also the names of officials formerly employed in said offices who have been retired on superannuation allowance, and the amount of retiring allowance being paid to each. Presented 9th April, 1915.—*Mr. Copp*.. ..*Not printed.*

CONTENTS OF VOLUME 28—*Continued.*

251. Return to an Order of the House of the 24th March, 1915, for a return showing the names of all persons from whom lands have been purchased, the quantity of land so acquired, and the amount paid therefor, in connection with the Dartmouth and Dean's Post Office Branch of the Intercolonial Railway since the date of return numbered 128 made to Parliament at the last regular session thereof. Presented 9th April, 1915.—*Mr. Maclean (Halifax)*.. .. .. .

CONTENTS OF VOLUME 28—*Continued.*

260*b*. Return to an Order of the House of the 8th March, 1915, for a return showing:—1. From how many firms or private individuals the Government or any department of the Government, has ordered service shirts since the 1st of July, 1914? 2 The names of these firms? 3. How many service shirts have been ordered from each firm? 4. How many each firm has delivered up to date? 5. How many each firm has yet to deliver? 6. The price each firm is receiving for these service shirts? Presented 10th April, 1915.—*Mr. Carroll*.. .. .. .

CONTENTS OF VOLUME 28—*Continued.*

267. Return to an Order of the House of the 17th March, 1915, for a copy of all petitions, letters, documents, etc., between persons in the province of Nova Scotia and the Department of Trade and Commerce since 1st August last, with regard to Atlantic ocean freight rates on subsidized steamers or otherwise. Presented 10th April, 1915.—*Mr. Maclean (Halifax)*.. .. .. .

CONTENTS OF VOLUME 28—*Continued.*

278. Return to an Order of the House of the 8th April, 1915, for a return showing:—1. The number of employees connected with the administration of the Three Rivers post office on the 21st September, 1911, and the annual amount paid in salaries at that date for such service. 2. The number of employees connected with the administration of the Three Rivers post office at the present date, and the amount of the annual salaries paid for such service. 3. The number of employees in the Customs Department for Three Rivers on the 21st September, 1911, and the amount of the annual salaries paid for such service. 4. The number of employees in the Customs Department for Three Rivers at the present date, and the annual amount of the salaries paid for such service. 5. The number of employees in the Inland Revenue Department for the district of Three Rivers on the 21st September, 1911, and the annual amount of salaries paid for such service. 6. The number of employees at the present date in the Inland Revenue Department for the district of Three Rivers, and the amount of the annual salaries paid for such service. 7. The number of employees, and the amount paid in salaries for the works on the St. Maurice, in the county of Champlain, during the year 1911-12. 8. The number of employees, and the amount of salaries paid per year for the works on the St. Maurice, in the county of Champlain, since 1911-12. 9. If the employees whose names follow, were dismissed on the 26th and 27th November, 1914, and the 4th and 5th January, 1915; Wildé Lavalée, Pierre Thicierge, Joseph Paquin, sr., Joseph Paquin, jr., Athanase Gélinas, clerks. 10. If so, at whose request, and for what reasons. 11. If those days were taken off the salaries of such employees. Presented 13th April, 1915.—*Mr. Bureau*.. .. .. .

CONTENTS OF VOLUME 28—*Continued.*

289. Report and evidence upon the matter known as: "Grazing Ranch No. 2422, J. G. Turriff, A. J. Adamson, and J. D. McGregor." Presented by Hon. Mr. Coderre, 13th April, 1915.. .. .. .

CANADA

REPORT

OF THE

MINISTER OF PUBLIC WORKS

ON THE

WORKS UNDER HIS CONTROL

FOR THE

FISCAL YEAR ENDED MARCH 31

1914

VOL. 1

Submitted in accordance with the Provisions of Chapter 89, Section 34, of the Revised Statutes of Canada.

PRINTED BY ORDER OF PARLIAMENT

OTTAWA
PRINTED BY J. DE L TACHÉ, PRINTER TO THE KING'S MOST EXCELLENT MAJESTY
1915

[No. 19—1915.]
19—A

To Field Marshal His Royal Highness Prince Arthur William Patrick Albert, Duke of Connaught .and of Strathearn, K.G., K.T., K.P., etc., etc., etc., Governor, General and Commander in Chief of the Dominion of Canada.

I have the honour to lay before Your Royal Highness the Report of the Department of Public Works of Canada, for the fiscal year ended March 31, 1914.

I have the honour to be, sir,
Your Royal Highness's most obedient servant,

ROBERT ROGERS,
Minister of Public Works.

OTTAWA, December 30, 1914.

CONTENTS.

VOLUME 1.

Part I.—DEPUTY MINISTER'S REPORT.
" II.—ACCOUNTANT'S REPORT.
" III.—CHIEF ARCHITECT'S REPORT.
" IV.—CHIEF ENGINEER'S REPORT.
" V.—GENERAL SUPT. OF TELEGRAPH'S REPORT.
" VI.—COLLECTOR OF REVENUE'S REPORT.
" VII.—MISCELLANEOUS REPORTS.

VOLUME 2.

REPORTS ON GEODETIC LEVELLING.

ALPHABETICAL INDEX TO REPORT

Names of Places, etc.	Part 1. Page	Part 2. Page	Part 3. Page	Part 4. Page	Part 5. Page	Part 6. Page	Part 7. Page
A							
Abenaquis Springs, P. Q.		28					
Accountant's report		1					
Acton, Ont., post office		12	21				
Acton Vale, P.Q., public building		9-47					
Acts of Parliament							59
Agassiz, B.C., experimental farm		19-56					
Ainsworth, B.C.		38		321			
Alberni, B. C., Indian office		19					
Albert, N.B		26		109			
Alexandria, Ont., public building		12-50					
Alice Arm, B.C.		38		321			
Almonte, Ont., public building		12-50	21				
Alsask, Sask., immigration building		17-53					
Amaguadees, N.S.		21		3			
Amherstburg, Ont., public building		12-50					
Amherst, P.Q.		28		155			
Amherst, N.S.		21		4			
" public building		7-46	3				
Ancona, Ont.		34		230			
Anderson's Cove, N.S.		21		5			
" Hollow, N.B		26		109			
Angers, P.Q.		28		156			
Annandale Pier, P.E.I.		25		96			
Annapolis, N.S.		21		5			
" public building		7-46	3				
Anse à Beaufils, P.Q.		28		156			
Anse à Blondel, P. Q.		29					
Anse à Giles, P. Q		29		157			
" à l'Eau, P.Q.		29		157			
" à la Grosse Roches, P.Q.		29					
Anse à l'Islot, P. Q.		29		157			
Anse à Simon, P. Q		29		157			
Anse au Griffon, P. Q.		29		158			
" aux Gascons, P.Q.		29		158			
" St. Jean, P.Q		29		158			
Anticosti, P.Q., telegraphs.		43			12-87		
Antigonish, N.S., public building		7-46					
Antigonish Landing, N.S.		21		6			
Anyox, B. C., Customs House		19					
Argenta, B. B.		39		321			
Arichat, N.S		21		6			
" public building		7-46					
Arisaig, N.S.		21		6			
Armitage Landing Ont.		34		230			
Arnolds Cove, N.S.		21		7			
Arnprior, Ont.		34		231			
" " public building		12-50					
Arrow Park, B.C.		39		321			
Arthabaska, P.Q., public building		9-47					
Art Gallery	7						63
Asbestos, P.Q., post office		47					
Ashcroft, B.C, post office		19	58				
Ashcroft-Dawson, telegraphs.		43					
Ashouapmouchouan, P. Q.		31		158			

Names of Places, etc.	Part 1. Page	Part 2. Page	Part 3. Page	Part 4. Page	Part 5. Page	Part 6. Page	Part 7. Page
A							
Ash Rapids, Ont.				231			
Assiniboine River, Man.		37		307			
Athabaska River, Alta.		38		319			
Athabaska Landing, Alta., building		18-55					
Athens, Ont., post office		12-50	21				
Atherly, Ont		34					
Atlin, B.C., post office		19-56					
Aurora, Ont., post office		12					
Avonport, N.S.		21		7			
Avon River, N.S.		21		7			
Aylmer, P.Q., post office		9-47					
" wharf		29		158			
Alymer West, Ont., post office		12	22				
B							
Baddeck, N.S., public building		7-46					
" wharf		21		8			
Baie des Roches, P.Q.		29		159			
Baie St. Paul, P.Q.		29		159			
Bailey's Brook, N.S.		21		8			
Baker's Brook, N.B.				135			
Baker Lake, N.B.		27		135			
Baker's Point, N.S.		21		9			
Ballantine's Cove, N.S.		21					
Bamfield, B.C.		38					
Banff, Alta., parks building		18					
Banff, Alta., bridge		42					
Barachois de Malbaie, P.Q.		29		159			
Bare Point, Ont.		34		280			
Barnston Island, B.C.		38		322			
Barrie, Ont., puolic building		12-50	22				
" wharf		34		231			
Barrington Cove, N.S.		21		9			
Barry's Bay, Ont		34		231			
Bassano, Alta., post office		18					
Bass River, N.B.		26		110			
Bathurst, N.B., harbour		26		110			
" public building		8-47	8				
Batiscan, P.Q.		29					
Battleford, Sask., public building		17-53	52				
Battery Point, N.S.		21		10			
Baxter's Harbour, N.S.		21		10			
Bay du Vin, N.B.				111			
Bay of Fundy telegraphs		42			11-84		
Bayfield, N.S.		21		12			
Bayfield, Ont.		34					
Bay St. Lawrence, N.S.		21		11			
Bayswater, N.S.		21					
Beacon Bar, N.B.		28		141			
Bear Cove, N.S.		21		12			
Bear Point, N.S.		21		13			
Bear River, N.S.		21		13			
Bear River, post office		7					
Bear's Pass, Ont., bridge				526			
Bear Trap, N.B.		26		13			
Beaton, B.C.		38		322			
Beauharnois, P.Q., post office		9-47					
Beaumarais, Ont.		34		232			
Beauport, P.Q.		29					
" " post office		9					
Beaver River, N.S.		21		13			
Becancour, P.Q.		29		159			
Beauvivage, P.Q.		29					
Beaverton, Ont.		34		233			

Names of Places, etc.	Part 1. Page	Part 2. Page	Part 3. Page	Part 4. Page	Part 5. Page	Part 6. Page	Part 7. Page
B							
Belfast. Pier, P.E.I		25		96			
Belœil, P.Q.		29		160–521			
Belle Ewart, Ont		34		233			
Belle River P.E.I		25		97			
Belleville, Ont., harbour		34		233			
" " public buildings		12–50					
Belmont Park, B. C		38		322			
Bergeronnes, P.Q		29		160			
Berlin, Ont., public building		12–50					
Berthier, P.Q		29		161			
Bersimis, P. Q				161			
Berthierville, P.Q.		29		161			
" public building		9 47					
Bic, P.Q		29		162			
Big Aldouane, N. B		28					
Big Bay, Ont		34		234			
Big Bay Point, Ont		34		235			
Biggar, Sask., immigration building		17–53	52				
Black Lake, P.Q., post office		47					
Black Point, N.S		21		14			
Black Rock, N. S		21		14			
Black River, Ont		34–42		235–516			
" N.B		26		111			
Black Sturgeon River, Ont				526			
Blanche, N.S		21		14			
Blantford, N. S		21					
Blenheim, Ont., post office		50					
Blind River, Ont		34		235			
Blondin, N.S		21					
Blue Rocks, N. S		21		15			
Blue Rocks, N. S		21		15			
Bluff Head, N. S		21		15			
Boisdale, N.S		21					
Boissivain, Man., post office		16					
Boars Head, N.B		26					
Bobcaygeon, Ont		34		236			
Bold Point, B.C		38		322			
Bolton Centre, P.Q., post office		9					
Bonshaw Wharf, P.E.I		25		96			
Boswell, B.C		38					
Boularderie Centre, N.S		21		15			
Bowmanville, Ont., public building		12–50	22				
" Ont		34		236			
Bow River, bridge				529			
Bracebridge, Ont., post office		12	22				
" wharf		34		236			
Brampton, Ont., public building		12–50	23				
Brandon, Man., public buildings		16–53	50				
Brantford, Ont., public buildings		12–50	23				
Brèche à Manon. P.Q		29					
Breens Pond, N.S		21					
Brewer's Wharf, P.Q		32		162			
Bridgeburg, Ont., public building		12–50					
Bridgewater, N.S., public building		7	3				
"		21					
Bridgetown, N.B				112			
" N.B., post office		7–46					
Bridges and roads		42		521			
Brighton, Ont		34		237			
British Columbia, dredging				444			
" " harbours and rivers				321			
" " telegraphs					13–101		
Broad Cove Marsh, N.S		21		16			
Brockville, Ont., public building		12–50	23				
" "		34					
Brooklyn, N.S		21		16			
Bronte, Ont		34		237			

Names of Places, etc.	Part 1. Page	Part 2. Page	Part 3. Page	Part 4. Page	Part 5. Page	Part 6. Page	Part 7. Page
B							
Bruce Mines, Ont.		34		238			
Brulé, N.S.		21		17			
Brundage Point, N.B.		27		135			
Brussels, Ont., post office		12					
Bryants Landing, P.Q.		29		162			
Buckingham, P.Q., public building		9-47					
" "		29-32		163			
Buctouche Beach, N.B.		26		112			
Buctouche, N.B.		26		112			
" post office		8					
Burford, Ont., post office		12					
Burks Falls, Ont., post office		13					
" wharf		34		239			
Burkes Head, N.S.		21		18			
Burleigh Falls, Ont.		34		239-520			
Burlington channel, Ont.		34		239			
Burlington, Ont.		34		239			
Burrard Inlet, B.C.		56		352			
Burton City, B.C.		39		323			
C							
Cabano, P.Q.		29		163			
Cabbage Gut, N.S.		21		18			
Cable ship *Tyrian*		43			113		
Cache Bay, Ont.		31		240			
Caesarea, Ont.		34		241			
Cacouna, P.Q.		29		163			
" post office		47					
Caldwells Cove, N.S.		21					
Caledonia, Ont., post office		13					
Calgary, Alta., public buildings		18-55	56				
Callender, Ont.		34		241			
Campbell River, B.C.		38		323			
Campbellford, Ont., post office		13					
Campbells Bay, Ont.		34		242			
Campbellton, N.B., public building		8-47	8				
" " wharf		26		113			
Camp Island, B.C.		38		323			
Cannes de Roches, P.Q.		29		163			
Canning, N.S., post office		7					
Canoe wharf, B.C.		38		323-350			
Camora, Sask., post office		17					
Canso, N.S., public building		7-46	4				
Canso Harbour, N.S.		21		18			
Canton Fabre, P.Q.		29					
Cap à la Baleine, P.Q.		29		164			
Cap à l'Aigle, P.Q.		29					
Cape Bald, N.B.		26		113			
Cape Breton, N.S., telegraphs		42			11-81		
Cap Chatte, P.Q.		29					
Cape Cove, P.Q.		29		164			
Cap de la Madeleine, P.Q.		29		164			
Cape Negro, N.S.		21		19			
Cape Ray, telegraphs		42			11		
Cap Rosier, P.Q.		29					
Cape Rouge, P.Q., experimental farm		9-47					
Cape St. Mary, N.S.		21		19			
Cap Santé, P.Q.		29					
Cap St. Ignace, P.Q.		29					
Cape Tormentine, N.B.		26		114			
Capilano, B.C.				323			
Caraquet, N.B.		26		114			
Carberry, Man., post office		16					
Cardigan River, P.E.I.		25		98			
Carcross, Y.T., custom house		20					

Names of Places, etc.	Part 1. Page	Part 2. Page	Part 3. Page	Part 4. Page	Part 5. Page	Part 6. Page	Part 7. Page
C							
Caretakers							79
Caribou Island, N.S.		21		19			
Carleton, N.B., post office		47					
Carleton Place, Ont., public building		13-50	23				
Carlyle, Sask., forestry office		17					
Carman, Man., post office		16	50				
Carrs Brook, N.S.		21		20			
Carters Pond, N.S.		21		20			
Cascade Flume, B.C.		38		324			
Castle Bay, N.S.		21		3			
Castor, Alta., immigration building		18-55					
Cayuga, Ont., public building		13-50					
Cedar Creek, B.C.				324			
Cement laboratory				530			
Centreville, N.S.		21		20			
Chambord, P.Q.		29		164			
Chambly, P.Q.		29					
Champlain, P.Q.		29					
Chance Harbour, N.B.		26		114			
Chapeau Bridge, P.Q.		42		524			
Charlesbourg, telegraphs		43					
Charlottetown, P.E.I., harbour		25		97			
" public building		8-46	13				
Chase, B.C.				324			
Chase, B.C., engineers office		56					
Chatham, N.B., harbour		26		115			
" public building		8-47	7				
" Ont., "		13-50	23				
Chaudière bridge		42		521			
Chebogue, N.S.		21		21			
" Harbour, N.S.				21			
Chesley, Ont., public building		13-50	24				
Chester, N.S., "		7		21			
" canal		21					
Cheticamp, N.S.		21		22			
Cheverie, N.S.		21		23			
Chicoutimi, P.Q., harbour		29		164			
" public building		9-48					
Chief Accountant, report		1					
Chief Architect "			1				
Chief Engineer "				1			
Chief officers of Department							69
Chilliwack, B.C.		38		325			
" " post office		19-56	58				
Choclate Cove, N.B.		26		115			
Chockfish, N.B.		26		116			
Churchouse, B.C.		38		325			
Church Point, N.S.		21		24			
Clair, N.B., immigration office		47					
Clam Bay, B.C.		38		325			
Clarke City, P.Q.		29		165			
Clarke's Harbour, N.S.		21		24			
Clairmont Ferry, Ont.		34					
Clinton, Ont., public building		13-50					
Cloud Bay, Ont.		34		242			
Coaticook, P.Q., public building		9-48					
Cobalt, Ont.		13-50					
Cobourg, Ont., public building		13-50	24				
" harbour		34		242			
Cocagne, N.B.		26		116			
Coffins Island, N.S.		21		24			
Colborne, Ont.		34		243			
Colchester, Ont.		34		244			
Cole Harbour, N.S.		21					
Coles Point, N.B.		26		116			
Collector of revenue						1	
Collection of slide and boom dues		42				3-9	

Names of Places, etc.	Part 1. Page	Part 2. Page	Part 3. Page	Part 4. Page	Part 5. Page	Part 6. Page	Part 7. Page
C							
Collingwood, Ont		34		244			
" graving docks		34					
" post office		13	24				
Colpoys Bay, Ont				245			
Columbia River, B.C		39		325			
Comeau Cove, N.S		21					
" Hill, N.S		21					
Comaplix, B.C		39					
Comeauville, N.S				25			
Comox, B.C., post office		19-56	59				
Commission Georgian Bay Ship Canal				541			
Connaught Place		42					
Contrecoeur, P.Q		29		166			
Contract dredging				472			21
Contracts let							6
Cookshire, P.Q., public building		9 48					
Coquitlam, B.C., "		19					
" dredging				326			
Cornwall, Ont., public building		13-50					
Cote St. Catherines, P.Q		29		167			
Coteau Landing, P.Q		29		166			
Cottage Cove, N.S		21		25			
Coulonge River, P.Q		42		516			
Courtenay, B.C., post office		19	59				
Courtney Bay, N.B		28		143			
Courtright, Ont				245			
Cranbrook, B.C., public building		19-56	59				
Crane Island, P.Q		43		167			
Craven dam, Sask				317			
Crawford Bay, B.C		39		326			
Crofton, B.C		39		326			
Cross Point, P.Q		29		168			
Cumberland, B.C., public building		19-56	59				
Cunninghams Point, N.S		22		25			
D							
Dalhousie, N.B		26		116			
" public building		8-47	7				
Dartmouth, N.S., public building		7-46	4				
Dauphin, Man., public building		16-53					
D'Autray, P.Q				168			
Dawson, Y.T., public buildings		20	59				
Dawson Point, Ont		34		245			
Dease River, B.C		39		327			
De Courcy Island, B.C		39		327			
Deep Cove, B.C		39		327			
Deer Park, B.C		39					
Delta, Man		37		308			
" bridge				528			
Deloreys Beach, N.S		22					
Departmental buildings, Ottawa	6						
Deputy Minister, report	1						
Dasbarats, Ont		37		246			
Deschambault, P.Q		29		168			
Deseronto, Ont		35		246			
" " public building		13-50					
D'Esconsse, N.S		22		25			
Desjardins, P.Q				168			
Devils Island, N.S		22		26			
Digby, N.S		22		27			
" public building		7-46	4				
Diligent River, N.S		22		28			
Dipper Harbour, N.B		26		117			
D'Israeli, P.Q., post office		9					
Dorchester, N.B		26		118			
Dorion, P.Q		29		169			

Names of Places, etc.	Part 1. Page	Part 2. Page	Part 3. Page	Part 4. Page	Part 5. Page	Part 6. Page	Part 7. Page
D							
Doucets Landing, P.Q		29		169			
Douglastown, P.Q		29		170			
Dredging and plant		41					
Dredging, British Columbia				444			
" under contract				472			
" Manitoba				430			
" Maritime provinces				358			
" New Brunswick				374			
" Nova Scotia				358			
" N.W.T				440			
" Ontario				416			
" operations	9			357			
" plant, names, etc				492			
" P. E. Island				366			
" Quebec				384			
Dresden, Ont., post office		13-50	24				
Driftwood Creek, Ont		35					
Drummondville, P.Q., public building		9-48					
Dry docks	44			512	6-15		
Duncan Station, B.C.		19	59				
" " survey		39					
Dundas, Ont., public building		13-50	24				
Dundee, P.Q., custom house		9-48					
Dunham's, N.B				118			
Dunville, Ont., post office		13					
Durham, Ont., post office		13					
" N.B		26		118			
Dyers Bay, Ont		35		247			
E							
Eagle Head, N.S		22		28			
East Angus, P.Q., public building		9					
East Arrow Park, B.C		39		327			
East Bay, N.S		22		28			
East Chezzetcook, N.S		22		29			
Eastern Harbour, N.S		22					
Eastern passage, N.S		22		29			
Eastern Points, N.S		22		30			
East Ferry, N.S		22					
East Jeddore, N.S		22					
East Jordan, N.S		22		30			
East Port L'Hebert, N.S				30			
East river, N.S		22		31			
East Ship Harbour, N.S		22		31			
East Templeton, P.Q		29		170			
Echo Bay, Ont		35		247			
Ecureuils, P.Q				170			
Ecum Secum, N.S		22					
Edgetts Landing, N.B		26		118			
Edgewood-Nakusp telegraphs		43					
Edgewood, B.C		39					
Edmonton, Alta., public building		18-55					
" " wharf		38		319			
" " bridge		42		529			
Edmundston, N.B., immigrant building		47					
Edson, Alta., immigrant building		18-55					
Eganville, Ont., post office		13	24				
Edinwood, Ont., post office		13					
Elkhorn, Man., post office		16					
Elora, Ont., post office		13-50	25				
Elmira, , Ont., post office		13	25				
Emerson, Man., public building		16-53					
Employes, graving docks							77
" slides and booms							73
Engineers, firemen, etc							79
Englishtown, N.S		22		32			

Names of Places, etc.	Part 1. Page	Part 2. Page	Part 3. Page	Part 4. Page	Part 5. Page	Part 6. Page	Part 7. Page
E							
Entwistle, Alta., immigrant building		55					
Escoumains, P.Q.		29		170			
Esquimalt, B.C. graving dock		39		512		6-14	
Essex, Ont., public building		13-50	25				
Estevan, Sask., post office		17-53					
Evandale, N. B		26-27		119-135			
Evans Point, N.S		22					
Exeter, Ont., post office		13					
Expenditure	3	45					
F							
Fabre, P.Q.		30		171			
Fairville, N.B., post office		8-47	7				
Fairhaven, N.B.		26		119			
Falls Point, N.S.		22					
False Creek, B.C.				352			
Farnham, P.Q., public building		9-48					
Fassett, P.Q.		30		171			
Father Point, P.Q.		30		171			
Feltzen South, N.S.		22		32			
Fergus, Ont., public building		13-51	25				
Fernie, B.C. "		19-56	60				
Fighting Island, Ont		35					
Finlay Point, N.S.		22		32			
Fitzroy Harbour, Ont.		35		247			
Forest, Ont., post office		13					
Forsland, B.C.		39					
Fort Coulonge, P.Q.		30		172			
Fort Dufferin, N.B.				144			
Fort Frances, Ont., public buildings		13					
Fort Qu'Appelle, Sask.		38					
Fort George Canyon, B.C		40		349			
Fort William, Ont.	8	35		248			
" post office		13-51	26				
Fox Island, N.S.		22		33			
Fox Point, N.S.		22					
Franklin Point, P.E.I		25		99			
Fraser River, B.C		39		328			
Fraserville, P.Q., public building		9-48					
" " wharf		30					
Fredericton, N.B., public building		8-47	8				
" " wharf		26-27		119			
Freeport, N.S.		22					
French River, Ont.		35		252			
" " N.S.		22		33			
" " P.E.I		25		99			
French Village, N.S.		22		34			
Friar's Head, N.S.		22		34			
Friendly Cove, B.C.		39					
Fruids Point, N.S.		22		34			
G							
Gabarus, N.S.		22		34			
Gabriola Island, B.C.		39		330			
Galt, Ont., public building		13-51	26				
Gananoque, Ont. "		13-51	26				
" " dredging		35					
Garthby, P.Q				172			
Gaspé Basin, P.Q.		30		172			
" P.Q., post office		9					
Gatineau Point, P.Q		30		172			
Gatineau River, P.Q.				172			
Gatineau slides, P.Q.		42		515			
Georgetown, P.E.I., public building		8-47	13				
" "		25		99			
" Ont., post office		13					

Names of Places, etc.	Part 1. Page	Part 2. Page	Part 3. Page	Part 4. Page	Part 5. Page	Part 6. Page	Part 7. Page
G							
Georgeville, P.Q.		30		173			
" N.S.		22		35			
Georgian Bay Canal	9			541			
Gerows, N B.		26		120			
Gibson, N.B.		27					
Gimli, Man.		37		308			
Giscombe Rapids, B.C.		40		349			
Glace Bay, N.S., public building.		7-46					
Glace Bay Beach, N.S.		22		36			
Glen Almond, P.Q.		32		173			
Glencoe, Ont., public building		13-51					
Gleneden, B.C.				350			
Goat Island, N.S		22					
Godefroy River, P.Q.				173			
Goderich, Ont.		35		253			
" public building		13-51					
Golden, B.C., post office		19					
Golden-Windermere telegraphs.		43			101		
Goose Bay, B.C.		39		330			
Goose Creek, N.B.		26		120			
Gooseberry Cove, N.B		26		120			
Gore Bay, Ont., post office.		13-51					
Gorge Harbour, B.C.		39		330			
Gower Point, B.C.		39		331			
Graham, P.Q		30		174			
Graham's Landing, B.C				331			
Granby, P.Q., public building		9 48					
Grand Anse, N.B.		26		120			
Grand Bend, Ont.		35		253			
Grande Dune, N.B.		26					
Grand Entrée, P.Q.		30		174			
Grand Etang, N.S.		22		36			
Grand Falls, N.B., post office.		8-47	9				
Grand Forks, B.C., public building.		19-56	60				
Grand Greve, P.Q		30					
Grandigue, N.B.		26		121			
Grand Marsh, P.Q		30					
Grand Mechins, P.Q.		30					
Grand Mère, P.Q., post office.		9					
Grand Métis, P.Q.		30					
Grand Narrows, N.S		22		37			
Grand Prairie, Sask., lands office		18-55					
Grand River, P.E.I.		25		100			
Grand River, N.B		27		136			
Grande Rivière, P.Q.		30		174			
Grand River, Bridge.		42		527			
Grantham's Landing, B.C.		39		331			
Gratuities, paid.		44					
Gravelbourg, Sask., public building.		17-53	57				
Gravenhurst, Ont		35		254			
" " post office		13					
Graving docks.		44		512		6	
" officials.							77
Great Village, N.S.		22		37			
Green Point, N.B.		26		121			
Green River, N.B.		27		136			
Gretna, Man., post office.		16					
Greenwood, B.C., post office		19	60				
Grenville, P.Q.				175			
Grey Creek, B.C		39		331			
Grimsby, Ont., post office.		13	26				
Griffiths Island, Ont		35		254			
Grondines, P.Q.		30		175			
Grosses Coques, N.S.		22		38			
Grosse Isle, P.Q., quarantine station		9-30	14	176			
" telegraphs		43			12-90		
Grosse Roches, P.Q.		30		177			

Names of Places, etc.	Part 1. Page	Part 2. Page	Part 3. Page	Part 4. Page	Part 5. Page	Part 6. Page	Part 7. Page
G							
Grouard, Alta., lands office		18-55					
" " dredging		38		320			
Guelph, Ont., public building		13-51	27				
Gull Harbour, Man		37		308			
Gunters, N.B		26		121			
Guysboro, N.S., public building		7-46	4				
H							
Haileybury, Ont		35		254			
Halifax, N.S., public building		7-46	4				
" dry dock		22					
Halletts, B.C		39		332			
Halls Harbour, N.S		22		38			
Hamilton, Ont		35		256			
" public buildings		13-51	27				
Hampton, N.B		8	9				
Hanover, Ont., post office		13	27				
Hantsport, N.S., post office		7					
" " wharf		22		38			
Harbours and rivers generally	8			3			
Harbour au Bouche, N.S		22		39			
Hardy Bay, B.C		39					
Harrigan Cove, N.S		22		39			
Harrington, P.Q		30		177			
Harriston, Ont., public building		13-51	28				
Harrup, B.C		39					
Hartland, N.B., post office		8-47	9				
Harvey Bank, N.B				122			
Hatfield Point, N.B		26		122			
Hatzic, B.C				332			
Hawkesbury, Ont., public building		13 51					
" bridge		42		524			
Hawkestown, Ont		35		256			
Head River, Ont		35		257			
Helens Bay, Ont		35		257			
Herbert, Alta., immigration building		53					
Herring Rocks, N.S		22					
Hespeler, Ont., post office		13					
Heustis Landing, N.B		27					
High Falls, P.Q		32		177			
High River South, post office		18					
Hillsborough, N.B., post office		8-47	10				
Hilton, Ont		35		257			
Hinton, Sask., forestry office		18					
Hnausa, Man		37		309			
Hochelaga, P.Q., public building		9					
Holberg, B.C		39		332			
Hollyburn, B.C		39		332			
Honey Harbour, Ont		35		258			
Hopewell Cape, N.B		26		122			
Hopewell Hill, N.B		26		122			
Horton Landing, N.S		22		39			
Hospital Bay, P.Q		30					
Howe Sound, B.C		39		332			
Hudson, P.Q		30		177			
Hudson Bay Gardens, B.C		41		349			
" Junction, Sask		17					
Hull, P.Q., wharf		30		178			
" public building		9-48					
Humboldt, Sask., public building		17 53	53				
Huntington, B.C., custom house		19					
Huntsville, Ont		35		258			
" " post office		13					
Hydraulic rents							

Names of Places, etc.	Part 1. Page	Part 2. Page	Part 3. Page	Part 4. Page	Part 5. Page	Part 6. Page	Part 7. Page
I							
Iberville, P.Q.		30		178			
" public building		9-48					
Ile aux Castors, P.Q.		30		179			
Ile aux Foins, P.Q.		30		179			
Ile du Pads, P.Q.		30		180			
Indian Head, Sask., experimental farm		17-54	53				
Ingersoll, Ont., public building		13-51	28				
International waterways commission		44					
Invermere, B.C.		39		333			
Inverness, N.S.		22		40			
" public building		7-46	5				
Iona, N.S.		22		40			
Irish Cove, N.S.		22		41			
Iroquois River, N.B.		27		136			
Irvine, Alta., immigration bldg.		55					
Isle aux Coudres, P.Q.		30					
Isle aux Grues, P.Q.		30					
Isle Cadieux, P.Q.		30					
Isle Verte, P.Q.		30		180			
" " post office		48					
Island River, N.B.				123			
J							
Jackfish, Ont.				258			
Jasper Park, Sask.		18					
Jeannettes Creek, Ont.		35					
Jedborough, Sask., forestry station		17					
Jeddore, N.S.		22		41			
Joliette, P.Q., public buildings		9-48					
Jones Bridge, P.Q.		30					
Jones Harbour, N.S.		22		41			
Jonquieres, P.Q., post office		9					
K							
Kagawong, Ont.				259			
Kaministiquia River, Ont.				248			
Kamloops, B.C., public building		19-56	60				
" " telegraphs		43			101		
Kamouraska, P.Q.		30		181			
Kaslo, B.C.		39		333			
Kawartha Park, Ont.		35		259			
Kelly's Cove, N.S.		22		42			
Kelowna, B.C., custom house		19					
Kelwood, Man., forestry office		16					
Kempenfeldt Bay, Ont.		35		259			
Kemptville, Ont., post office		13	28				
Kenora, Ont., public building		13-51	28				
" " wharf		35		259			
Kensington, Ont.		35		260			
Kentville, N.S., public building		7-46	5				
Kerobert, Alta., immigration building		54					
Kier's Shore, P.E.I.				100			
Killarney, Ont.		35		260			
Kincardine, Ont.		35		261			
" " public building		13-51	28				
Kindersley, Sask. "		17					
Kingsport, N.S.		22		42			
Kingston, Ont.		35					
" " dry dock				512		6	
" " public buildings		14-51	28				
Kingsville, Ont.		35		261			
" " post office		14					
Kippewa dam		43					
Knowlton, P.Q., public building		9-48					
Knowlton Landing, P.Q.		30					

Names of places, etc.	Part 1. Page	Part 2. Page	Part 3. Page	Part 4. Page	Part 5. Page	Part 6. Page	Part 7. Page
K							
Kootenay Bay, B.C.		40		334			
" Lake, B.C.		40		334			
Kouchibougouac, N.B.		26		123			
Kraut Point, N.S.		22		42			
L							
Lac des Ecorces, P.Q.		30		181			
" des Iles, P.Q.		30		181			
" Labelle, P.Q.		30		182			
Lachine, P.Q.		30					
" " public building		9-48	16				
Lachute, " " "		9-48					
Lacombe, Alta., experimental farm		18-55					
Ladner, B.C.				334			
Ladysmith, B.C., public building		19-56	60				
Lake Aylmer, P.Q.		30					
Lakefield, Ont., post office		14	29				
Lake Manitoba, Man.		38		309			
Lake Nipissing, Ont.		35					
Lake St. John, P.Q.		30					
Lakeport, Ont.		35		262			
Lake Timiscamingue, P.Q.		30-35					
Lakevale, N.S.		22					
Lakeview, N.B.		27-28					
Lalancette, P.Q.		30		182			
Lands leased			71				50
Lanoraie, P.Q.		30		182			
Lansdowne, Ont.		35					
Langley, B.C.		39					
La Passe, Ont.		35		262			
Laprairie, P.Q.		30		183			
" " public building		9-48					
La Petite Decharge, P.Q.				183			
L'Ardoise, N.S.		22		43			
Larry's Cove, N.S.		22		43			
Lasquetti Island, B.C.		40		335			
L'Assomption, P.Q., public building		9-48					
Last Mountain Lake, Sask.		38		317			
Latchford dam				262-513			
Lauzon, P.Q.		9-30					
Lavaltrie, P.Q.		30					
Leamington, Ont., wharf		35		263			
" " public building		14-51					
Leases			71				50
Leonards Cove, N.S.		22		45			
Leonardville, N.B.		26		124			
Le Pas, Man., post office		53					
L'Epiphane, P.Q., post office		9					
Les Eboulements, P.Q.		30					
Les Ecureuils, P.Q.		30					
L'Etang, N.B.		27		124			
Lethbridge, Alta., public buildings		18-56	57				
Levis, P.Q, harbour		30					
" graving dock		30		512		6-15	
" public building		9-48	16				
Lewis Point, P.E.I.		25		100			
Lillooet River, B.C.		40		335			
Lindsay, Ont., public building		14-51	29				
Lingan Beach, N.S.		22		45			
L'Islet, P.Q.		30		184			
Lions Head, Ont.		35		263			
Listowel, Ont., post office		14-51	29				
Litchfield, N.S.		22		45			
Little Aldouane, N.B		24					
" Anse, N.S.		22		45			
" Black River, N.B		27		124			

Names of Places, etc.	Part 1. Page	Part 2. Page	Part 3. Page	Part 4. Page	Part 5. Page	Part 6. Page	Part 7. Page
L							
Little Bras d'Or, N.S.		22		45			
" Castor River, Ont.		35					
" Current, Ont.		35		264			
" Dipper Harbour, N.B.		27		124			
" Grassey River, Ont.				264			
" Gully, N.B.		27		125			
" Lameque, N.B.				125			
" Lorraine, N.S.		23		46			
" Metis, P.Q.		30					
" Narrows, N.S.		23		46			
" River, B.C.				335			
" River, N.S.		23		47			
" St. Francis, N.B.				137			
" Sands, P.E.I.		25		100			
Liverpool, N.S., public building		7–46	5				
" " harbour.		23		47			
Livingston Cove, N.S.		23		48			
Lloydminster, Sask., public building		17–54	52				
Lockeport, N.S.		23		48			
" B.C.		40		335			
" Man.		37					
Locks and Dams				513			
Loggieville, N.B.		27		125			
London, Ont., public buildings		14–51	30				
Long Beach Pond, N.S.		23		49			
" Cove, N.S.		23		49			
" Lake, Ont.		35		265			
" Point, Ont.		35					
" Rapids, P.Q.		30		187			
" Long Sault Rapids, Ont.				265			
Longueuil, P.Q., public building.		9–48					
" " wharf		31		184			
L'Orignal, Ont.		35		266			
" " post office		51					
Lorneville, N.B.		27		126			
Lords Cove, N.B.		27		126			
Lorettville, P.Q., post office		9					
Lorraine, Ont.		35		266			
Lotbinière, P.Q.		31					
Louisville, P.Q., post office		10	16				
" "		31					
Louis Head, N.S.		23		49			
Lower L'Ardoise, N.S.		23					
" Montague, P.E.I.				101			
" Prospect, N.S.		23		50			
" Ship Harbour, N.S.		23		50			
" Valdez, B.C.		40					
" West Pubnico, N.S.		23		50			
Lunenburg, N.S., public building		7–46	5				
Mc							
McAlpins, N.B.		27		126			
McAras Brook, N.S.		23		51			
McCauleys, P.E.I.		25		101			
McMurdo, B.C.		40		336			
McKays Point, N.S.		23		51			
McKellar River, Ont				249			
McNairs, Cove, N.S.		23		51			
M							
Mabou, Bridge, N.S.				53			
Mabou Harbour, N.S.		23		52			
Maces Bay, N.B.		27		126			
Macklin, Sask., immigration building		17–54					

Names of Places, etc.	Part 1. Page	Part 2. Page	Part 3. Page	Part 4. Page	Part 5. Page	Part 6. Page	Part 7. Page
M							
Macleod, Alta., public buildings		18-56					
Madawaska River, Ont		42		266			
" slides "		35		516			
Magdalen Islands, P.Q.		31					
" " telegraphs		43			85		
Magnet Chaunel, Ont				267			
Magog, P.Q.		31		186			
" " public building		10-48					
Mahone Bay, N.S.		23					
Main River, N.B.		27					
Maisonneuve, P.Q., post office		10					
Maitland, N.S.		23		53			
Malbaie, P.Q.		31		186			
Malignant Cove, N.S.		23		54			
Malpeque, P.E.I.		25		100			
Manche à Epée, P.Q.		31					
Manitou Rapids, Ont.				267			
Manitou, Man., post office		16					
Manitoba, dredging				430			
" harbours				307			
" public buildings			50				
" bridges				528			
Maple Creek, Sask., public building		17-54					
Maquapet Lake, N.B.		27					
Marble Cove, N.B.		27		127			
" Mountain, N.S.		23		55			
Margaree Island, N.S.		23		55			
" River, N.S.				55			
Margaretsville, N.S.		23		56			
Maria, P.Q.		31					
Marieville, P.Q., public building		10-48					
Marion Bridge, N.S.		23		56			
Maritime Provinces, telegraphs					11		
Markham, Ont., post office		14-51					
Martins Island, Ont.		35		267			
Marysville, N.B., public building		8-47					
Massett, B.C		40					
Masson, P.Q.		31		187			
Matane, P.Q.		31		187			
" " post office		10	16				
Matapedia road		42		525			
" bridge				524			
Matthews Lake, N.S.		23		56			
Meaford, Ont		36		267			
Mechins, P.Q				187			
Medicine Hat, Alta., public building		19-56	57				
Megantic, P.Q., post office		10-48					
" wharf		31		187			
Melford, N.S		23					
Melford, Sask., post office		17-54	53				
Melita, Man., post office		16					
Merrickville, Ont., post office		51					
Merritt, B.C., post office		19					
Metchosin, B.C.		40		336			
Meteghan, N.S.		23		57			
" River, N.S.		23		57			
Michipicoten River, Ont.		36		268			
Middle Country, Harbour, N.S.		23		57			
Middle River, N.S.		23		58			
Middleton, N.S., buildings		7					
Midland, Ont.		36					
" " post office		14-51	30				
Mildmay, Ont., post office		14					
Millars Rapids, Ont.				269			
Millbrook, Ont., post office		14					
Mill Cove, N.S.		23		59			
Mill Creek, N.S.		23		59			

Names of Places, etc.	Part 1. Page	Part 2. Page	Part 3. Page	Part 4. Page	Part 5. Page	Part 6. Page	Part 7. Page
M							
Mille Vaches, P.Q.		31		188			
Mills Point, N.B.		27		127			
Milltown, N.B., post office		8					
Milton, Ont., post office		14					
Milverton, Ont., post office		14		30			
Mineota, Man., bridge		42		528			
Minnedosa, Man., public building		16–53	51				
Minnikahda, B.C.				336			
Mira Ferry, N.S.		23		59			
Miramichi Bay, N.B.		27		127			
" River, N.B.		27					
Miscou, N.B.		27		127			
Mispec, N.B.		27		128			
Mission City, B.C., public buildings		19					
Mission river, Ont.				250			
Mission, B.C.				336			
Mistassini, P.Q.		31		188			
Mitchell, Ont., public building		14–51	30				
Mochelle, N.S.		23					
Moncton, N.B., public building		8-47	10				
Monetville, Ont.		36		269			
Montague, P.E.I., public building		8-47	13				
Montague River, P.E.I.		25		101			
Montebello, P.Q.				188			
Mont Louis, P.Q.		31		188			
Montmagny, P.Q., public building		10-48					
" wharf		31		189			
Montreal River, Ont.		36		270–513			
" P.Q., public buildings		10–48	17				
Moose Harbour, N.S.		23		59			
Moosejaw, Alta., public buildings		17-54	53				
Morden, N.S.		23		60			
Morden, Man., post office		16	51				
Morrisburg, Ont., post office		14					
Mount Forest, Ont., public building		14–51	31				
Mount Stewart, P.E.I.		25		102			
Murray Bay, P.Q.		31					
" " " post office		10					
Murray Harbour, P.E.I.		25		102			
Mushaboom, N.S.		23		60			
Muskoka Rapids, Ont.		36		270			
Musquodoboit, N.S.		23		60			
N							
Naas River, B.C.		40					
Nadoo River, B.C.		40		336			
Names of Chief Officers							69
Nanaimo, B.C.		40					
" public building		19-56	61				
Nappan, N.S., experimental farm		7–46					
Napanee, Ont.		36		271			
" " public building		14–51					
Nashwaak River, N.B.		27					
Natashquan, P.Q.		31					
Nation River, Ont.		36					
National Art gallery	7						63
Naufrage Pond, P.E.I.		25		103			
Necum Teuch, N.S.		23		61			
Needles, B.C.		40		336			
Neepawa, Man., post office		16–53					
Negro Point, N.B.		28		144			
Neguac, N.B.		27		128			
Nelson, B.C.				337			
Nelson, B.C., public building		19-56	61				

Names of Places, etc.	Part I. Page	Part 2. Page	Part 3. Page	Part 4. Page	Part 5. Page	Part 6. Page	Part 7. Page
N							
Nelson Road, B.C.		39		337			
Netley Lake, Man		38		310			
New Brunswick, dredging				374			
" public buildings		8-47	8				
" telegraphs					11-84		
" harbours				109			
New Campbellton, N.S.		23		61			
New Carlisle, P.Q.		31					
Newcastle, Ont.		36		271			
Newcastle, N.B., public building		8-47	10				
Newcastle, N.B		27		128			
Newellton, N.S.		23		62			
Newfoundland telegraphs					11-17		
New Glasgow, N.S., public building		7-46	5				
New Hamburg, Ont		14					
New Hazelton, B.C., post office		19					
New Liskeard, Ont		36		271			
New London, P.E.I		25		103			
Newmarket, Ont., post office		14					
New Massett, B.C.				337			
New Mills, N.B		27					
Newport, P.E.I		25					
New Richmond, P.Q.		31		189			
New Westminster, B.C.				337			
" public buildings		19-56	61				
Niagara Falls, Ont., public building		14-51	31				
Nicolet, P.Q.		31		190			
" public building		10-48					
Nicomekel River, B.C.		40		338			
Nicomen, B.C.				338			
Nigger Island, Ont.		37		299			
Noel, N.S.		23		62			
Nominingue, P.Q., immigration building		10-48					
Nootka Island, B.C.				338			
North Battleford, Sask., public building		17-54	54				
North Bay, Ont		36		272			
" public building		14-51					
North Bay, N.S.		23					
North Cardigan, P.E.I.		25		103			
North Cooking Lake, Sask		19					
Northeast Margaree, N.S.		23					
North Head, N.B.		27		129			
North Gut, N.S				63			
North Guigues, P.Q		31		190			
North Ingonish, N.S.				63			
North Lake, P.E.I.		25		103			
North Portal, Sask., buildings		17-54					
North River, P.E.I.		25		104			
North Saskatchewan river		38		317			
North Shore, St. Lawrence, telegraph					12-87		
North Sydney, N.S., public building		7-46	5				
" " wharf		23		63			
North Timiskaming, P.Q.		31		191			
" " bridge		42		525			
North Vancouver, B.C., post office		19					
Northwest Cove, N.S		23					
Northwest Miramichi, N.B				129			
Northwest Territories, telegraphs					92		
Norway Bay, P.Q		31		191			
Norwich, Ont., post office		14					
Notre Dame de Pierreville, P.Q		31					
Nova Scotia, harbours				3			
Nyanza, N.S.		23		64			
O							
Oak Lake, Man., post office		16					
Oak Point, N.B.		27					

Names of Places, etc.	Part 1. Page	Part 2. Page	Part 3. Page	Part 4. Page	Part 5. Page	Part 6. Page	Part 7. Page
Ocean Falls, B.C.		19	62				
Officers of the Department							69
Ogdens Pond, N.S.		23		64			
Ogilvies, N.S.		23		65			
Okanagan Mission, B.C.		40		339			
Okanagan river, B.C.		40		338			
Oliphant, Ont.		36					
Ontario, bridges				521			
" dredging				416			
" harbours				230			
" public buildings		12-50	21				
" telegraphs		43			13-91		
Orangeville, Ont., public building		14-51	31				
Orillia, Ont.		36		273			
" " public building		14-51	31				
Oromocto Shoals, N.B.		27		129			
Osbornes, N.S.		23		65			
Oshawa, Ont.		36		274			
" " post office		14-51	31				
Ostrea Lake, N.S.		23		66			
Ottawa, Ont., art gallery		7					63
" buildings and grounds		50	32				
" experimental farm		50	34				
" government house			34				
" public buildings	6	11-50	32				
" post office		50					
" river		36		274			
" " storage				533			
" roads and bridges				521-526			
" slides and booms		42		515			3-9
" streets, repairs			50	41			
Owen Sound, Ont.		36		271			
" public building		14-51					
P							
Palmerston, Ont., post office		14					
Papineauville, P.Q.		31		191			
Paris, Ont., public building		14-51	41				
Parkers Cove, N.S.		23		66			
Parkhill, Ont., public building		14-51					
Parrsboro, N.S., public building		7 46	6				
Parry Sound, Ont.		14					
" " wharf		36		275			
Partridge Island, N.B.		28		144			
" " quarantine				145			
Peel Head Bay, P.Q.		31		192			
Pelee Island, Ont., telegraphs		43			91		
" " docks		36		276			
Pelican Lake, Man.		38		310			
Pembroke, Ont., public building		14-51	42	42			
Pender Harbour, B.C.		40		339			
Pender Island, B.C.		40					
Penticton, B.C.				340			
" post office		19					
Penetanguishene, Ont.		36		276			
Percé, P.Q.		31		192			
Peribonka, P.Q.		31		192			
Peribonka, P.Q., immigration building		10-19					
Perkins Landing, P.Q.				192			
Perry Point, N.B.		27		130			
Perth, Ont., post office		14					
Petewawa, Ont., slides		42		516			
Peterborough, Ont., public buildings		14-51	41				
" "		36		277			
Petit Descharge, P.Q.		31					

Names of Places, etc.	Part 1. Page	Part 2. Page	Part 3. Page	Part 4. Page	Part 5. Page	Part 6. Page	Part 7. Page
P							
Petite de Grat, N.S.		23		66			
Petite Lamèque, N.B.		27					
Petit Métis, P.Q.				193			
Petit Rivière, N.S.		23		67			
" East, P.Q.		31					
Petit Saguenay, P.Q.		31		193			
Petrolea, Ont., public building		14-51	42				
Piche Point, P.Q.		31		194			
Picnic Island, Ont.		36		277			
Picton, Ont.		36		278			
Picton, Ont., public building		14-51	42				
Pictou, Island N.S.		23		68			
Picton, N.S.		22		31			
Pictou, N.S., public buildings		7-46	6				
Pierreville, P.Q., public building		10-49					
" wharf.		31		194			
Pierreville Mills, P.Q.		31		195			
Pike Creek, Ont.		36		278			
Pincher Creek, Alta., forestry office		56					
Pinette, P.E.I.		25		104			
Pipers Cove, N.S.		23		68			
Pitt River, B.C.		40		340			
Pleasant Bay, N.S.		23		68			
Plessisville, P.Q., post office		10-49					
Point Cowan, B.C.		40		340			
Pointe à Elie, P.Q.		31		195			
Pointe à la Loupe, P.Q.		31		212			
Pointe aux Esquimaux, P.Q.		31		195			
Pointe Claire, P.Q.		31					
Pointe du Chêne, N.B.		27		130			
Point Edward, Ont.		36		278			
Point Fortune, P.Q.		31		195			
Point Jaune, P.Q.		31					
Pointe Piche, P.Q.		31					
Pont Lauren, P.Q.				196			
Pointe Sapin, N.B.		27		130			
Poltimore, P.Q.		32		196			
Porcupine, Ont.		36		279			
Portage du Fort, bridge		42		526			
Portage la Prairie, Man., public building		16-53					
Portage River, N.B.		27		130			
Port Alberni, B.C., custom house		19					
Port Arthur, Ont.	8	36		279			
" " public building		14-51	42				
Port Beckerton, N.S.		23		69			
Port Bruce, Ont.		36		282			
Port Burwell, Ont.		36		282			
Port Clyde, N.S.		23		69			
Port Colborne, Ont., breakwater		36					
" " public building		14-51	44				
Port Credit, Ont.		36					
Port Daniel, P.Q.		31		196			
Port Dufferin, N.S.		23		70			
" " N.B.		28					
Port Elgin, Ont.		36					
Port Essington, B.C.		40		340			
Port Findlay, Ont.				283			
Port Greville, N.S.		24		70			
Port Haney, B.C.		40		340			
Port Hawkesbury, N.S.		24		71			
Port Hebert, N.S.		24					
Port Hood, N.S.		24		71			
Port Hope, Ont., harbour		36		284			
" " public building		14-51	44				
Port Joli, N.S.		24		72			
Port McNicol, Ont.,		36					
Port Maitland, N.S.		24		72			

Names of Places, etc.	Part 1. Page	Part 2. Page	Part 3. Page	Part 4. Page	Part 5. Page	Part 6. Page	Part 7. Page
P							
Port Mouton, N.S.		24		72			
Port Mulgrave, N.S.		24		73			
Portneuf, P. Q		31		196			
Port Perry, Ont., post office		14–51	44				
Port Rowan, Ont		36		285			
Port Selkirk, P.E.I.		25		105			
Port Stanley, Ont		36		285			
Porters Lake, N.S.		24		73			
Portuguese Cove, N.S.		24		74			
Poupore, P.Q.		31–32		197			
Powell River, B.C.		40					
Prescott, Ont., public buildings		14–52					
Preston, Ont., post office		14	44				
Prince Albert, Sask., public buildings		17–54	54				
" " wharf		35		318			
Prince Edward Island, dredging				366			
" " harbours				96			
" " public buildings		8–46	13				
" " telegraphs		42					
Prince Rupert, B.C., post office, etc		19–56	62				
" " wharf		40		341			
Printing and stationery		20					
Pritchard, B. C.		40		350			
Proctor, B.C.		39					
Properties purchased and sold							32
Prospect, N.S.				74			
Providence Bay, Ont		36		287			
Public buildings, Alberta		18–55	56				
" British Columbia			58				
" Manitoba		16	50				
" New Brunswick		8	7				
" Nova Scotia		7	3				
" Prince Edward Island		8	13				
" Ontario		12	21				
" Quebec		9	14				
" Saskatchewan			52				
" Yukon		20	59				
" Generally	4	1					
Public Landing, N.B.		27		131			
Q							
Quaco, N.B.		27		131			
Quaco, West, P.Q.				132			
Qu'Appelle telegraphs		43					
Quarry Bay, Ont.		36		287			
Quatsino, B.C.		40		341			
Quebec, dredging				384			
" bridges				521			
" harbours				155			
" public buildings		9–30	14				
" telegraphs		43			12–93		
Quebec city, harbour		31					
" public buildings		10–49	19				
Queenston, B C		40		341			
Quisibus River, N. B.		27		137			
Quinze dam		43					
Quyon, P.Q		31		197			
R							
Rainy River, Ont.		36		287			
Recapitulation	3	45					
Red Deer, Alta., public building		19–56					
Red Island, N. S.		24		74			
Red River, Man.		38		310			
Reeds Point, N. B.		27		132			
Refuge Bay, B.C.		40		341			

Names of Places, etc.	Part 1. Page	Part 2. Page	Part 3. Page	Part 4. Page	Part 5. Page	Part 6. Page	Part 7. Page
R							
Regina, Sask., public buildings		17-54	55				
Renata, B. C		40		341			
Renfrew, Ont., public building		14-52	44				
Rents			71			6-16	
Restigouche River, N.B				132			
Retreat Cove, B. C		40		341			
Revelstoke, B.C., post office		20-56	62				
" " wharf		39					
Revenue	4					1	
Rexton, N.B		27		132			
Richards Landing, Ont		36		288			
Richelieu River, P.Q		43					
Richibucto, N.B		27		133			
" Beaches, N.B		27		134			
" Cape, N.B		27		134			
" public building		8-47	12				
Richmond, P.Q., public building		11 49					
Richmond, icebreaker				198			
Rideau Hall, Ottawa		11	34				
Ridgetown, Ont., post office		52					
Rigaud, P.Q., public building		11-49					
Rigaud, P.Q. wharf		31		198			
Rimouski, P.Q		31		198			
" public building		11-49					
Riondel, B. C				342			
Rivière au Vases, P.Q		31		199			
Rivière aux Renards, P.Q		31		199			
Rivière Batiscan, P. Q		31					
Rivière Bois Blanc, P.Q		31		200			
Rivière Blanche, P.Q		31		199-200			
Rivière Bonaventure, P.Q		32					
River Bourgeois, N.S		24		75			
Rivière Caplan, P.Q		32		200			
Rivière Chicot, P.Q		32					
Rivière Chateauguay, P.Q		32					
Rivière des Vases, P.Q		32		200			
Rivière du Lièvre, P.Q		32		514			
" " " post office		49					
Rivière du Loup, P.Q		32		201			
" " " (en bas)		32		201			
Rivière Du Moulin, P.Q		32		202			
Rivière du Sud, P.Q		32					
" Gatineau, "		32					
Rivière Godefroy, P.Q		32					
Rivière la Guerre, P.Q		32		202			
Rivière la Pipe, P.Q		32		202			
Rivière Maskinonge, P. Q		32					
River Mills, N. B		27-28		135			
" Mistassini, P.Q		32					
Rivière Nicolet, P.Q		32					
Rivière Nouvelle, P. Q		32		202			
Rivière Ouareau, P. Q		32					
Rivière Ouelle, P.Q		32		203			
Riviere Peribonka, P.Q		32					
Rivière Saguenay, P.Q		32					
" " " slides		42		520		6	
Riviere St. Charles, P.Q				203			
River Ste Croix, N.B		27					
River St. Francis, P.Q		32		203			
River St. John, N.B		27		135			
River St. Lawrence, Ont		36		289			
" " P.Q		32					
River St. Louis, P.Q		32		204			
Rivière St. Louis, P.Q				204			
Rivière St. Maurice, P.Q., slides		42		519			
" " " improvements		32		204			
River Thames, Ont		36		289			

Names of Places, etc.	Part 1. Page	Part 2. Page	Part 3. Page	Part 4. Page	Part 5. Page	Part 6. Page	Part 7. Page
R							
Rivière Valin, P.Q.		32					
Rivière Verte, P.Q.		32		206			
Rivers, Man., post office		16					
Roads and bridges		42		521			
Robbins Landing, Ont		36					
Roberts Bay, B.C.		40		342			
Roberval, P.Q.		32		206			
Roberval, P.Q., pub. bldg.		17–49	19				
Robinson's Island, P.E.I.		25		105			
Roblin, Man., forestry office		53					
Rock Island, P.Q., post office		11–49					
Rock Island, B.C.				342			
Rocky Mountain Park, Alta.		56					
Rocky Point, B.C.		40		342			
Rocky Point, P.E.I.		25		105			
Rondeau, Ont.		36		290			
Rosseau, Ont.		36		292			
Rossland, B.C., pub. bldg.		20–56	62				
Rosthern, Sask., expt'l. farm		17–54					
Round Bay, N.S.		24		76			
Round Hill, N.S.		24		76			
Roys Beach, B.C.		40		343			
Ruisseau à Loutre, P.Q.		32		207			
Ruisseau Leblanc, P.Q.		32		207			
Running Creek, Ont.		36					
Ruskin, B.C.		39		343			
Russels, B.C.		39					
Rustico, P.E.I.		26		105			
St.							
St. Adelaide de Pabos, P.Q.		32		208			
St. Agathe des Monts, P.Q., post office		11					
St. Andrew's N.B.		28		139			
" P.Q.		32		208			
St. Andrews rapids, Man.		38		312			
St. Angele de Laval, P.Q.		32					
St. Anne de Bellevue, P.Q., post office		49					
" " "		32					
St. Anne de Chicoutimi, P.Q.		32					
Ste. Anne des Monts, P.Q.		32		208			
St. Anne du Saguenay, P.Q.				208			
St. Ann's, N.S.		24					
St. Antoine, P.Q.		32		208			
" Station, P.Q.		32		209			
St. Armand, P.Q., custom house		11					
St. Boniface, Man., public bld'g		16–53					
St. Catharine's, Ont., post office		15–52					
St. Charles, P.Q.		33		210			
St. Charles river, N.B.		28		139			
Ste. Clothilde, P.Q.		33		210			
St. Croix, P.Q.		33		210			
" N.B.				140			
St. Cuthbert, P.Q.		33		211			
St. Denis, P.Q.		33		212			
St. Eloi, P.Q.		33		213			
St. Emilie, P.Q.		33		212			
St. Eustache, P.Q., post office		11–49					
St. Famille, P.Q.		33					
St. Felician, P.Q.		33		212			
St. Felicite, P.Q.		33		213			
St. Flavie, P.Q., station		49					
St. Francis river, N.B.		27		138			
St. Francois du Lac, P.Q.		33		213			
St. Francois, South, P.Q.		33					
St. Fulgence, P.Q.		33		214			

Names of Places, etc.	Part 1. Page	Part 2. Page	Part 3. Page	Part 4. Page	Part 5. Page	Part 6. Page	Part 7. Page
St							
St. Gabriel de Brandon, P.Q., post office		11–49	20				
" " " icebreakers				214			
St. Gedeon, P.Q.		33		215			
Ste. Genevieve, P.Q.		33					
St. George de Malbaie, P.Q.		33		215			
St. George, East Beauce, P.Q., post office		11–49					
St. George, N.B.		28		140			
" " public building		8					
St. Germain de Kamouraska, P.Q.		33					
St. Godefroye, P.Q.				215			
St. Gregoire de Montmorency, P.Q.		33					
St. Henri, P.Q., post office		11					
St. Hyacinthe, P.Q., public bldg.		11–49					
St. Irenee, P.Q.		33					
St. Jacques des Piles, P.Q.		33					
St. James, Man., drill hall		16					
St. Jean des Chaillons, P.Q.		33		215			
St. Jean des Piles, P.Q.		33					
St. Jean d'Orleans, P.Q.		33					
St. Jean Port Joli, P.Q.		33		216			
St. Jerome, P.Q., public building		11–49					
" " wharf		33		216			
St John, N.B., public buildings		8–47	10				
St. John, N.B., harbour	8	28		141			
" N.B., river		27		135			
St. Johns, P.Q., public buildings		11–49					
St. Johns, P.Q.				217			
St. Joseph, N.S.		24		76			
St. Joseph Island, Ont.		36		292			
St. Joseph de Letellier, P.Q.		33					
St. Joseph de Sorel, P.Q.		33		217			
St. Lambert, P.Q.		33		217			
St. Lambert, P.Q., post office		11–49	20				
St. Laurent, P.Q.		33					
" post office		11	20				
St. Leonards, N.B., immigration office		47					
" P.Q., immigration building		49					
St. Louis, N.B.		28		147			
St. Louis river, P.Q.		33		204			
St. Majorique, P.Q.		33		218			
St. Marc, P.Q.		33		218			
St. Martin, N.B.		28					
St. Marys, Ont., public bldg.		15–52					
St. Mary's, N.B.		28		148			
St. Marys river, Ont.		37					
St. Mathias, P.Q.		33		218			
St. Mathieu, P.Q.		33		218			
St. Maurice river, P.Q.		32		204			
" " slides		42		519		5–12	
St. Michel, P.Q.		33		219			
St. Nicholas, P.Q.		33					
St. Omer, P.Q.		33		219			
St. Ours, P.Q., post office		11					
" wharf		33		219			
St. Peter's Bay, P.E.I.		26		106			
St. Pierre les Becquets, P.Q.		33		220			
St. Regis, P.Q., custom house		49					
St. Roch, P.Q.				220			
St. Roch des Aulnaies, P.Q.		33		221			
" de Mekinac, P.Q.		33					
" de Richelieu, P.Q.		33					
St. Romuald, P.Q., post office		11					
" "		33		221			
St. Rose, P.Q., post office		49					
St. Siméon, P.Q.		33					
St. Stephen, N.B., public bldg.		9–47	12				
St. Stephens, N.B.		28		148			

Names of Places, etc.	Part 1. Page	Part 2. Page	Part 3. Page	Part 4. Page	Part 5. Page	Part 6. Page	Part 7. Page
St							
Ste. Thérèse, P.Q., public bldg.		11–49	20				
St. Thomas, Ont., public bldg		15–52	46				
St. Timothee, P.Q		33		221			
St. Ulric, P.Q				200			
St. Valier, P.Q		33		221			
Ste. Victoire, P.Q		33		222			
St. Williams, Ont		37		292			
St. Zotique, P.Q		33		222			
S							
Sackville, N.B., post office		9					
" wharf		28		149			
Saguenay river, P.Q				222			
" slides		42		520		6	
Salaries of clerks of works		20					
Salmon Arm, B.C		39		343			
Sambro, N.S		24		77			
Sanford, N.S		24		77			
Sand Point, N.B				143			
Sand Point, Ont		37		293			
Sandspit Point, B.C		40		343			
Sandwich, Ont., public bldg		15–52					
Sannichton, B.C		40					
Sarnia, Ont		37		293			
" public bldg		15–52	44				
Saskatoon, Sask., public bldg		17–54	55				
Saskatchewan river		38					
" dredging		38					
Sangeen River, Ont		37					
Saulnierville, N.S		24		77			
Sault au Mouton, P.Q		33		223			
Sault Ste. Marie, Ont., public building		15–52					
" "		37		294			
Sault Montmorency, P.Q		33					
Savary Island, B.C		40		343			
Scotch Creek Flats, B.C		40		344			
Scotts Bay, N.S		24		77			
Scott, Sask., experimental farm		18–54					
Seaforth, N.S		24		78			
Seaforth, Ont., public bldg		15–52	44				
Seagull, Ont		37					
Seal Cove, N.B		28		150			
Seal Island, N.S		24		78			
Seaside, N.S		24		78			
Sedgewick, Alta., immigration bldg		56					
Seigas river, N.B		27		138			
Selkirk, Man., public bldg		16–53					
" Slough, Man		38		313			
Severn Bridge, Ont		37					
Severn, Ont		37		296			
Seymour Arm, B.C		40		344			
Shag Harbour, N.S		24		79			
Shampers, N.B		28		150			
Shawinigan, P.Q., post office		11–49	20				
Shawville, P.Q., post office		11					
Shediac, N.B		28		150			
" " public building		9					
Shediac Island, N.B				150			
Sheet Harbour, N.S		24		79			
" " Passage, N.S		24		79			
Shelburne, N.S		24		80			
" public bldg		7–46	6				
Shelburne, Ont., public bldg		15	45				
Shelter Point, B.C		40		344			
Sherbrooke, P.Q., public bldg		11–49					

Names of Places, etc.	Part 1. Page	Part 2. Page	Part 3. Page	Part 4. Page	Part 5. Page	Part 6. Page	Part 7. Page
S							
Shippigan Gully, N.B.		28		151			
Shippigan Harbour, N.B.		28		152			
Shoal Bay, B.C.		40		344			
Shuswap Lake, B.C.		40					
Shutty Bench, B.C.		40					
Sidney, B.C.		40					
Sidney Island, B.C.		40					
Silver Centre, Ont.		37		297			
Simcoe, Ont., public building		15-52					
Skeena river, B.C.		40					
Skinners Cove, N.S.		24					
Slides and booms.		42		515		3	
" " officials							73
Smiths Falls, Ont., public building		15-52					
Snake Island, Man.		38		315			
Sober Island, N.S.		24		80			
Soda Creek, B.C., post office		20					
Sooke Harbour, B.C.		40		345			
Sorel, P.Q., public building		11-49					
" wharf		33		223			
Sorrento, B.C.		40		345			
Souris, P.E.I., harbour		26		106			
" " public building		8-47	14				
Souris, Man., post office		16-53					
Southampton, Ont.		15					
" breakwater		37					
South Bay, Ont.		37		298			
South Gabriola Island, B.C.		40		345			
South Gut, N.S.				81			
South Ingonish, N.S.		24		81			
South Lake, N.S.		24		82			
South Lancaster, Ont.		37					
South Nation river, Ont.		37		298			
South Porcupine, Ont.		37		298			
South River, P.E.I.				107			
Southwest Cove, N.S.		24		83			
Spanish Ship Bay, N.S.		24		83			
Spiller River, B.C.		40		345			
Spindlers Cove, N.S.		24					
Springhill, N.S., public building		7-46	6				
Spinney's Point, N.B.		28		152			
Sprague, Man., post office		16					
Spry Bay, N.S.				83			
Spry Harbour, N.S.		24		83			
Squamish, B.C.		40		345			
Stanstead Plain, P.Q., post office		11					
Steelton, Ont., post office		15					
Stellarton, N.S.		7					
Sterling Brook, N.S.		24		84			
Stikeen, B.C., Indian agency		20					
Steveston, B.C.				346			
Stewart, B.C.		40		346			
Stokes Bay, Ont.		37		298			
Stonehaven, B.C.		28		152			
Stonewall, Man., post office		16	51				
Stoney Island, N.S.		24					
Stratford, Ont., public building		15-52	45				
Stratford Centre, P.Q.		33		223			
Strathcona, Alta., public building		19-56	57				
Strathroy, Ont., " "		15-52	45				
Stuart River, B.C.				346			
Sturgeon Falls, Ont.		37					
Sturgeon River, Alta.		38		320			
Sudbury, Ont., post office		15	46				
Sumas, B.C.		39					
Summerland, B.C.		40		347-350			
Summerside, P.E.I., public building		8-47	14				
" " harbour		26		107			

Names of Places, etc.	Part 1. Page	Part 2. Page	Part 3. Page	Part 4. Page	Part 5. Page	Part 6. Page	Part 7. Page
S							
Summertown, Ont		37					
Summerville, N.S		24		84			
Sunshine Bay, B.C		39					
Surf Inlet, B.C.		40					
Surveys and inspections		43					
Sussex, N. B., public building		9-47	12				
Swan River, Man., immigration building		53					
Swims Point, N.S		24		84			
Swift Current, Sask., immigration building		18-54	56				
Sydenham River, Ont		37		299			
Sydney, N.S., public buildings		8-46	6				
" harbour		24					
Sydney, B C				347			
Sydney Island, B.C				347			
Sydney Mines, N.S		24					
" public building		8-46	6				
T							
Tabusintac, N.B				153			
Tadousac, P.Q		33		224			
Tancook Island, N.S		24					
Tangiers, N.S		24		85			
Tanners Pass, N.S		24					
Tappan, B.C				347			
Tatamagouche, N.S		24		85			
Telephones					16		
Telegraph and Nigger Island, Ont		37		299			
Telegraph Creek, B.C., Indian agency		20	62				
Telegraph lines, generally	10	42			1-5		
" reports					1-81		
" revenue					15		
" staff					5-17		
Terence Bay, N.S		24		85			
Terrebonne, P.Q., public building		11-49					
The Squam, N.S		24		86			
Thessalon, Ont		37		300			
Thetford Mines, P.Q., public building		11-49					
The Thrum, N.S		24		86			
Thetis Island, B.C				348			
The Wharfs, N.S		24		86			
Thomas Creek, N.B		28		153			
Thompson River, B.C		39-40		348			
Thornbury, Ont		37		300			
Thorold, Ont., post office		15					
Three Rivers, P.Q., public buildings		11-49	21				
" " harbour		33		224			
Thurso, P. Q		33		225			
Tiffin, Ont				300			
Tignish public building		8-47	14				
Tignish, P.E.I		26		107			
Tilbury, Ont., post office		15-52	46				
Tilsonburg, Ont., post office		15-52	46				
Timiskaming telegraphs		43			12		
" dam		43					
Tisdale, Sask., immigration building		18-54					
Tiverton, N.S		24					
Tobermoray, Ont		37		301			
Tobique River, N.B		27		138			
Tofino B. C		40		348			
Toronto, Ont., public buildings	6	15-52	46				
" harbour		37		301			
Total expenditure of department	3	45					
Tracadie, N.B				153			
Tracadie, N.B., lazaretto		9-47	12				
Tracadie, N.S		24					
Tracadie, P.E.I		26		108			

Names of Places, &c.	Part 1. Page	Part 2. Page	Part 3. Page	Part 4. Page	Part 5. Page	Part 6. Page	Part 7. Page
T							
Trail, B.C., post office		20					
Transcona, Man. post office		53					
Trent and Newcastle slides		42		520	5-13		
Trent Bridge, Ont		37		302			
Trenton, N.S		24					
Trenton, Ont		37		303			
" " public building		15-52	49				
Trois Pistoles, P.Q		34		226			
" " " post office		50					
Trout Cove, N.S		24		87			
Trout Rapids, Ont				303			
Trout River N.B		27		138			
Truro, N.S., public building		8-46	6				
Trynors Cove, N.B		28		153			
Two Bea on Bar, B.C				348			
Two Creeks, Ont		37					
Tyrian S.S. cable ship		43			14-113		
U							
Ucluelet, B.C		40		349			
Union Bay, B.C		40		349			
" " " post office		20-56	62				
Unity, Sask., immigration building		18-54	56				
Upper Derby, N.B		28		153			
Upper Fraser River, B.C		40		349			
" Lillooet River, B.C		41		350			
Upper Maugerville, N.B		28		135			
" Ottawa storage dams		43					
" Prospect, N.S		24					
Upper Salmon River, N.B		28		154			
Uxbridge, Ont., post office		15-52	49				
V							
Vails Point, Ont		37		303			
Val Caribou, P.Q				227			
Valeport, Alta		38					
Valleyfield, P.Q		34		227			
" public building		11-50					
Vananda, B.C		41		351			
Vancouver, B.C., public buildings		20-56	63				
" harbour		41		351			
" telegraphs		43			97		
Varennes, P.Q		34					
Vegreville, Alta., immigration building		19-56					
Verchères, P.Q		34		228			
" " post office		50					
Verdun, "		34		228			
" " post office		11					
Vermillion, Alta., immigration building		19-56					
Vernon, B.C., public building		20-57	66				
" River, P.E.I		26		108			
Victoria Bay, P.Q		34		228			
Victoria Bridge, N.S		25		87			
Victoria Beach Bay, Man		38		316			
Victoria, B.C., public buildings		20-57	66				
" Harbour, B.C		41		353			
" " Ont		37		304			
Victoriaville, P.Q., public building		11-50					
Viking, Alta., immigration building		19-56					
Ville Marie, P.Q		34		229			
Virden, Man., post office		16-53	51				
Voglers Cove N.S		25					
Wadena, Sask., buildings		18-55					
Wainwright, Sask., immigration building		19-56					

Names of Places, etc.	Part 1. Page	Part 2. Page	Part 3. Page	Part 4. Page	Part 5. Page	Part 6. Page	Part 7. Page
W							
Walker River, Ont.		37		246			
Walkerton, Ont., public building		15-52	49				
Walkerville, Ont., public building		15					
Wallaceburg, Ont., post office		15					
Walton, N.S.		25		88			
Washabuck Centre, N.S.		25		88			
Waterways Commission		44					
Waterloo, Ont., public building.		15-52					
Waterville, P.Q., post office		11					
Watford, Ont., post office		15					
Weedon, P.Q., post office		11					
Welsh's Cove, N.B.		28		154			
Welchpool, N.B.		28		154			
Welland, Ont., public building		16-52	49				
Wellington, Ont.		37		305			
Wendover, Ont.		37		305			
West Bacarro, N.S.		25		89			
West Berlin, N.S.		25		89			
West Chezzetcook, N.S.		25		89			
West Demers, B.C.		39		354			
West Dover, N.S.		25		90			
Western Shore, N.S.		25		90			
West Head, N.S.		25		91			
West Lorne, Ont.		16					
Westmount, P.Q., post office		11					
Weston, Ont., post office		16					
Westport, N.S.		25		91			
West Pubnico, N.S.		25		92			
West River, P.E.I.		26		108			
Westville, N.S., public building		8-46					
Wetaskawin, Alta., public building.		19-56	58				
Weyburn, Sask., post office		18-55	56				
Weymouth, N.S.		25		92			
" " post office		46					
Wheatley, Ont.		37		305			
Whitby, Ont., barbour		37		306			
" public building		16-52					
White Head, N.B.		28		154			
" " P.Q.		34					
Whitehorse, Y.T., post office		20					
White Point, N.S.		25		92			
White Rock, B.C., cattle quarantine		20-57					
Whites Bluff, N.B.		27-28		135			
Whites Cove, N.B.				155			
" " N.S.		25		93			
Whitewater, N.S.		25		93			
" Man., forestry office		16					
Whitney Pier, N.S.				93			
Whycocomagh, N.S.		25		94			
Wiarton, Ont., post office		16					
Wiarton, Ont.		37		306			
Wilkie, Sask., immigration building		18-55					
Williams Head, B.C., quarantine station		20-57	68				
Williams Head, Ont., wharf		41		354			
Willow Point, B.C.		41		355			
Wilmer, B.C.		39					
Wilson's Beach, N.B.		28		155			
Windermere, Ont.		37		306			
" B.C.		41		355			
Windsor, Ont., public building		16-52	49				
" " dock		37		307			
" N.S., public building		8-46	7				
" " harbour		25		95			
Wingham, Ont., public building		16-52	49				
Winnipeg, Man., "		16-53	51				
" " dredging		38		316			

Names of Places, etc.	Part 1. Page	Part 2. Page	Part 3. Page	Part 4. Page	Part 5. Page	Part 6. Page	Part 7. Page
W							
Winnipegosis, Man		38		316			
Winter Harbour, B.C		41		355			
Wolfsons Bay, B.C		41		355			
Wolfville, N.S., public building		8–46	7				
" wharf		25		95			
Woodbury Cove, N.B		28		155			
Woodeu River, B.C		41		356			
Woods Harbour, N.S		25		95			
Wood Islands, P.E.I		26		109			
Woodstock, N.B., public building		9–47	13				
" Ont., "		16-52	49				
Woodwards Cove, N.B		28					
" Slough, B.C				356			
Wyatt Bay, B.C				356			
Y							
Yamachiche, P.Q		34					
Yamaska, P.Q		34		230			
" River, P.Q., lock and dam		34		513			
Yarmouth, N.S		25		95			
" public building		8–46	7				
Yonker, Sask., immigration building		18–55					
Yorkton, Sask., public buildings		18					
York bridge, Ont		42		527			
Youngs Cove, N.B				155			
" N.S		25					
Yukon, public buildings		20		59			
Yukon river, B.C		41					
" telegraphs					13–103		

PART I

REPORT

OF THE

DEPUTY MINISTER OF PUBLIC WORKS

FOR THE YEAR ENDING MARCH 31

1914

REPORT

OF THE

DEPUTY MINISTER OF PUBLIC WORKS

FOR THE

FISCAL YEAR ENDED MARCH 31, 1914.

DEPARTMENT OF PUBLIC WORKS, CANADA,
OTTAWA, November 30, 1914.

Honourable ROBERT ROGERS,
Minister of Public Works,
Ottawa, Ont.

SIR,—I have the honour to submit the report of the operations of the Department of Public Works, under its various branches, for the fiscal year ended March 31, last.

EXPENDITURE.

The total expenditure incurred by the department during the year 1913-14 amounted to $27,991,336.94, and may be detailed as follows:—

Harbours and rivers	$ 7,696,135 37
Dredging and plant	6,228,302 79
Slides and booms	167,434 62
Roads and bridges	130,628 21
Public buildings	12,397,464 67
Telegraphs	768,378 33
Miscellaneous	602,992 95
	$27,991,336 94

The increase over last year's outlay, which was $18,844,223.90, amounts to $9,147,113.04; and as was the case in the preceding year, the expenditure on Public Buildings is the chief item, the increase under this heading amounting to nearly five million dollars. There is also a substantial increase in Harbour and River works of about three and three-quarter million dollars, while Dredging has increased comparatively little over the previous year.

REVENUE.

The total revenue for the year which amounted to $542,457.11, was gathered from the following sources:—

Slides and booms	$ 76,883 22
Graving docks	61,489 80
Rents	113,670 15
Telegraphs	253,112 27
Casual revenue	37,301 67
	$542,457 11

While the aggregate revenue shows a considerable increase—almost $55,000 in excess of that of the preceding fiscal year—there has been a material slump in the receipts from Slides and Booms which, last year, attained the sum of $110,108.34. This is accounted for in the Ottawa and St. Maurice Districts by low water, which prevented the usual number of logs being driven; and on the Saguenay by the fact that the pulp companies bring most of their logs by rail now, instead of down the river as formerly.

The large increase in rents is chiefly attributable to the rentals received from the Toronto General Post Office site, which amounted to over $21,000. There has also been a considerable increase in revenue from the Wellington street properties in Ottawa.

A substantial increase of over $37,000 is noted in the Telegraph revenue. This is explained chiefly by the additional mileage of Government telegraph constructed and the correspondingly increased return therefrom.

PUBLIC BUILDINGS.

The expenditure of the Chief Architect's Branch amounted to $12,397,464.67, which comprises the outlay not only on new buildings but the maintenance and improvement of those already constructed, which number at the present time three hundred and nineteen. There are also about forty new buildings that, it is expected, will be ready for occupation inside of a year.

The following buildings, given by provinces, were completed:—

Nova Scotia.—Parrsboro and Wolfville public buildings.

Quebec.—Megantic public building, Montreal Eastern Postal Station "C," Roberval, St. Lambert, and Shawinigan Falls public buildings.

Ontario.—Athens public building, Barrie public building addition, Chesley and Gananoque public buildings; Ottawa Government House addition, Paris and Pembroke public building additions; Tilbury, Tilsonburg, and Uxbridge public buildings.

Manitoba.—Brandon Experimental Farm, horse stables; Minnedosa and Morden public buildings.

Saskatchewan.—Humboldt public building; Indian Head Forestry Station, boarding house; Indian Head Experimental Farm, barn and stabling; Lloydminster and Weyburn public buildings.

Alberta.—Calgary immigration building and Lethbridge public building.

British Columbia.—Comox and Grand Forks public buildings, Vancouver examining warehouse, and Victoria Observatory.

Those commenced and still under construction at the close of the year under review were:—

Nova Scotia.—Amherst drill hall.

New Brunswick.—Fredericton public building, St. John armoury and new post office.

Quebec.—Lachine public building addition, Levis armoury, Louiseville and Matane public buildings; Montreal new examining warehouse, immigration detention hospital, postal station "F," postal station "H," and postal station "L," Westmount; Quebec immigration building (Louise Embankment) and post office addition, St. Gabriel de Brandon, St. Laurent, Ste. Thérèse and Three Rivers public buildings.

Ontario.—Aylmer, Bracebridge, Brantford, Collingwood, Eganville, and Elmira public buildings; Fort William examining warehouse, Grimsby and Hanover public buildings, Ingersoll public building addition, Kemptville public building, Kingston R.M.C. dormitory; Lakefield, Milverton, Midland, and Orillia public buildings; Ottawa Customs House, Port Arthur drill hall and examining warehouse; Preston, Shelburne, and Sudbury public buildings; Toronto postal station "G."

Manitoba.—Carman and Stonewall public buildings, Virden armoury, and Winnipeg drill hall.

Saskatchewan.—Battleford, Moosejaw, and North Battleford public buildings; Prince Albert drill hall, and Saskatoon Forestry Nursing Station, two residences, packing house, implement shed and stables.

Alberta.—Strathcona armoury. Strathcona and Wetaskiwin public buildings.

British Columbia.—Duncan and Greenwood public buildings, New Westminster public building addition, Prince Rupert quarantine hospital, Union Bay public building, Vancouver immigration detention building, Victoria drill hall and public building addition.

PRINCIPAL BUILDINGS.

Of the ninety-four buildings which the department had under construction during the year, the twelve largest, with the contract prices, were:—

Ottawa customs building	$1,173,000
Montreal examining warehouse	999,000
Winnipeg drill hall	519,929
Calgary examining warehouse	455,000

Quebec post office addition	$ 385,000
St. John post office	381,850
Quebec immigration building	382,500
Vancouver examining warehouse	324,435
St. John drill hall	263,936
Moosejaw public building	260,000
Brantford public building	244,308
Victoria drill hall	236,815

At the time of writing, the Quebec immigration building, Vancouver examining warehouse, St. John drill hall and Brantford public building have been completed. Winnipeg drill hall, Calgary examining warehouse and Moosejaw public building are nearing completion, while substantial progress is being made with the remainder of the foregoing list. The size and cost of the buildings, which it has become necessary to erect in the more important cities of the various provinces, is as truly indicative as any trade statement could be of the rapid growth of Canadian business. In a number of cases, public buildings have had to be either greatly enlarged or entirely replaced; and this, as might be expected, is particularly true of Western Canadian buildings which have been erected within comparatively recent years although at the time, it was anticipated, they would adequately provide for all Dominion services for a considerable period of time. The introduction of the letter carrier system and, quite recently, of rural mail delivery, has necessitated a vast increase in the working space of post offices. In our larger cities where it has been found impossible to accommodate the growing volume of business in one building, it has been deemed expedient to erect what are known as "postal stations," or branch post offices, which become the centres of newly organized mail carrier routes and discharge all the postal functions for the particular section of the city in which they are situated. In many cities the sortation of mail matter is now carried on at, or near, the railway stations; and in Winnipeg, Toronto, and Montreal the erection of large railway postal stations is in contemplation.

In Toronto, it was originally intended to erect the railway postal station on Front street, on the property at the corner of Bay, recently expropriated from the city, but an arrangement with the Toronto Terminals Railway Company is in contemplation, whereby the eastern wing of the new Union station building will be owned by the Government and utilized as a railway postal station.

NEW DEPARTMENTAL BUILDINGS COMPETITION.

This competition was open to architects who were British subjects and practising in the British Empire. The conditions and instructions governing the submission of designs were prepared by Messrs. T. E. Collcutt, London, England; J. H. G. Russell, Winnipeg, Man., and J. O. Marchand, Montreal, Que., and the reception of the preliminary designs was fixed for April 2, 1914. The competition was widely advertised, with the result that a large number of designs were received. There were sixty-two competitors and exclusive of the six successful ones whose names have not yet been announced, one was from South Africa, two were from Australia, twenty-one from Great Britain and thirty-two from Canada.

The department is to be congratulated on the uniform excellence of the plans submitted. There were few which did not show careful, exhaustive study and a fine quality of draughtsmanship. As called for by the terms of the competition, the assessors met and judged the different designs, finally choosing therefrom six which appeared to them to possess the greatest number of excellent points. The plans of the unsuccessful competitors were thereafter returned to them with a note of thanks and appreciation for having taken part in the competition. It was the intention originally to also have the six successful designs returned at once to their authors to be elaborated and resubmitted for final judgment, but it was finally decided to await the report of the Federal Plan Commission of Ottawa and Hull before proceeding further.

The need for new departmental buildings at the seat of Government is steadily increasing, however, as time goes on. The buildings at present projected are intended to provido an office area of five hundred thousand square feet and already there is space under rental in excess of that amount.

Including the additions made within recent years to both the East and West Blocks and the reconstruction of the Mines building on Sussex street, the office space afforded in Government-owned buildings in Ottawa aggregates only four hundred and four thousand and twenty-eight square feet, while the rented space totals five hundred and ninety-six thousand four hundred and ninety-eight square feet. The new buildings could therefore be filled to overflowing were they in existence at the present time.

NATIONAL ART GALLERY.

With the discriminating purchases made during recent years by the Advisory Art Council and the trustees of the National Gallery, that institution now possesses a well chosen collection of paintings and other works of art which is proving not only of interest to the general public but of great value to art students; a most valuable feature being the addition of excellently coloured reproductions of the world's most famous paintings. The innovation of throwing open the gallery from two o'clock to five o'clock during the winter months, on Sunday afternoons, has met with the most cordial response. Before the Sunday opening of the gallery on December 7, 1913, the average weekly attendance was six hundred and nineteen. Since that time it has been one thousand nine hundred and thirty-nine; the number of visitors on one Sunday, namely, March 1, having risen to more than one thousand five hundred people.

A number of important steps have been taken by the trustees during the past year to further the encouragement of art in Canada. After conference with the committee of the Royal Canadian Academy, it was decided that the National Gallery could best encourage Canadian artists by the purchase of as many of their meritorious works as possible; and, by loaning these as well as other objects of art, owned by the Gallery, to duly accredited or authorized art or other public bodies for the purpose of public exhibition and instruction, promote not only purchase by individuals but also the formation of public art bodies and societies throughout the Dominion. An annual travelling scholarship of one thousand dollars will also be instituted to be awarded to the most promising art student of the year. The committee of the Royal Canadian

Academy will arrange the details and award the scholarship, subject to the approval of the trustees. This will assist the successful person in pursuing his studies in the most famous European art centres.

HARBOURS AND RIVERS.

The department's expenditure under this heading amounted to the sum of $7,696,135.37, as compared with $3,921,000.85 during the preceding fiscal year.

The following works were completed during the year:—

Nova Scotia.—New wharves at East Ship Harbour, Lower Prospect, Marion Bridge, Port Clyde, Terrance Bay, Victoria Bridge, Walton, West Dover, and Western Shore; and breakwaters at Carrs Brook, Feltzen South, French River, Little Bras d'Or and Seal Island.

Prince Edward Island.—Wharves at French River, Franklin Point, and St. Peter's Bay.

New Brunswick.—Wharves at Albert, Bass River, Fairhaven, Fredericton, Gooseberry Cove, Little Lameque, Lorneville, Quaco, Evandale, Upper Maugerville, Brundages Point, Spinney's Cove, Stonehaven, and Upper Derby.

Quebec.—Wharves at Anse à Simon, Chicoutimi Basin, Fort Coulonge, Lalancette, North Guigues, Pointe à Elie, Ruisseau à la Loutre, St. Antoine, St. Antoine Station, Ste. Félicite, Ste. Victoire, Ville Marie; a breakwater at Ruisseau Leblanc and a pier at Gaspé Basin.

Ontario.—Wharves at Ancona, Beaumaris, Belle Ewart, Big Bay Point, Bobcaygeon, Cache Bay, Helens Bay, Kawartha Park, La Passe, Lorraine, Monetville, Orillia, Quarry Bay, and Rainy River.

British Columbia.—Wharves at Argenta, Barnston Island, Beaton, Belmont, Bold Point, Canoe Creek, Clam Bay, Crofton, Deep Cove, East Arrow Park, Gabriola Island, Gorge Harbour, Granthams Landing, Grey Creek, Halletts, Invermere, Lockport, McMurdo, Minnekahda, Nelson Road, Okanagan Mission, Pender Harbour, Point Cowan, Queenston, Renata, Retreat Cove, Roberts Bay, Rocky Point, Rays Beach, Ruskin, Seymour Arm, Shoal Bay, Shelter Point, South Creek Flats, Squamish, Summerland, Ucluelet, West Demers, Willow Point, Windermere, and Wolfson Bay.

Satisfactory progress has been made with the large contracts for works in public harbours to which reference was made in the last report, and no new contracts have been let for works of first importance. The improvements which have been carried out in the grain handling ports of the Dominion have produced gratifying results in the increase of the quantity of grain shipped. The most striking of these are Port Arthur and Fort William, from which ports was shipped during the season of navigation of 1913 the immense quantity of 205,265,303 bushels of grain. The total elevator storage for these two ports has now reached 43,290,000 bushels. The quantity of grain shipped from St. John, N.B., for the winter season, November 1, 1913, to March 31, 1914, amounted to 769,918 bushels. During the winter of 1914-15, the new Canadian Pacific

Railway grain elevator on the west side will be in operation; and the Government has constructed a line of conveyors enabling vessels to be served at Berths 5 and 6, in the Sand Point Slip. These additional facilities should result in materially increasing grain shipments from this port during the coming winter season.

During the calendar year 1913, the total grain exported from Montreal amounted to 46,372,283 bushels, of which 6,742,268 bushels were from the United States.

GEORGIAN BAY CANAL COMMISSION.

Following the survey which was carried out during the years 1904 to 1907, of the proposed ship canal from the Georgian bay to Montreal, which demonstrated the physical possibility of a twenty-two foot waterway between these points, the Government has decided, on the recommendation of the Minister of Public Works, that the project should also be made the subject of a careful and thorough inquiry from the view-point of the commercial facilities and public advantages to be derived from such a national undertaking. With that object, under the authority of an Order in Council dated March 16, 1914, a Royal Commission was appointed, composed of Messrs. W. Sanford Evans, of Winnipeg, chairman; Frank S. Meighen, of Montreal, and Edouard Gohier, of Montreal. A copy of the Order in Council will be found elsewhere in this volume. It sets forth at some length the various transportation, industrial and commercial aspects of the project which, it is desired, the commission should carefully study and report upon. Information of a statistical character in regard to the large variety of subjects which come within the scope of the commission's investigation, is now being collected and compiled by the staff; and as soon as this work is completed and the data so gathered carefully arranged and studied, it is the intention of the commission to hold public sittings throughout the Dominion at which the evidence of men prominently connected with the industrial, commercial and transportation interests of the country will be taken.

DREDGING.

The dredging operations of the Department during the year under review have entailed an expenditure of $6,228,302.79 of which $571,272.35 were expended on the construction of departmental plant; $445,208.58 on repairs; $1,348,483.38 on the operation of the departmental fleet, and the balance—$3,863,338.48 on contract dredging.

The most important works were carried on at the following places, where an expenditure of $10,000 or more was made:—

Nova Scotia.—Arnolds Cove, Cheticamp, Digby, Lakevale, Little Bras d'Or, Little Lorraine, Liverpool, Lockeport, Mill Cove, North Sydney, Port Mulgrave, Trenton, and Weymouth.

Prince Edward Island.—Charlottetown, Montague, Tignish, and Vernon River.

New Brunswick.—Bathurst, Buctouche, Campbellton, Fredericton, Miramichi Bay, Oromocto Shoals, Richibucto, St. Andrews, St. George, St. John Harbour, St. Stephen and Shippegan Gully.

Quebec.—Amherst, Longueuil, Magdalen Islands, Rivière du Loup (en haut), River Saguenay, River St. François, River St. Maurice, River St. Louis, Three Rivers.

Ontario.—Cloud Bay, Collingwood, Deseronto, Fort William, Goderich, Hamilton, Little Current, Midland, Napanee, Picnic Island, Picton, Port Arthur, Port Burwell, Port Stanley, Rainy River, River St. Lawrence (Kingston), Sault Ste. Marie, Telegraph and Nigger Islands, Toronto, Trenton, Victoria Harbour, and Whitby.

Manitoba.—Red River and Selkirk.

British Columbia.—Fraser River, Pitt River, Skeena River, Thompson River, Upper Fraser River, Vancouver, and Victoria.

TELEGRAPHS.

There are now ten thousand three hundred and twelve miles of Government telegraph lines, with seven hundred and seventy-one offices. The number of messages transmitted during the year reached a total of four hundred and forty-two thousand two hundred.

Five hundred and nineteen and three-quarter miles of new line were constructed, the principal additions being in the provinces of Quebec and British Columbia. In the former, cable was laid from Crane island to Goose Island, a distance of ten miles; and fifty-two and one-quarter miles of wire was stretched between Charlesbourg and Lake Beauport, making a total of sixty-two and one-quarter miles. In the province of British Columbia, three hundred and thirty-nine and one-half miles of telegraph line and cable were added, of which the longest stretches were one hundred and twenty-seven miles from Powell River to Vancouver, and one hundred and nine miles from Queen Charlotte to Tow Hill.

The lack of complaint testifies to the generally satisfactory operation of the Government telegraph lines throughout the Dominion.

It only remains for me to express my thanks and appreciation of the valuable assistance rendered by the various members of the staff throughout the year.

I have the honour to be, sir,
Your obedient servant.

J. B. HUNTER,
Deputy Minister.

PART II

REPORT OF THE CHIEF ACCOUNTANT

FOR THE

FISCAL YEAR ENDED MARCH 31

1914

DEPARTMENT OF PUBLIC WORKS, CANADA,
CHIEF ACCOUNTANT'S OFFICE,
OTTAWA, November 30, 1914.

R. C. DESROCHERS, Esq.,
Secretary, Department of Public Works,
Ottawa.

SIR,—I beg to submit the report upon the expenditure made by this department during the fiscal year ended March 31, 1913.

As in previous years, the report takes the form of three tabular statements, as follows:—

STATEMENT A, showing the expenditures upon each work under the several heads of (1) construction and improvements, (2) repairs, (3) staff and maintenance. In treating of public buildings, as it would be cumbersome to give the cost of maintenance in detail in this statement, that expenditure is condensed into one item, for each province, the fuller detail being reserved for Statement B.

STATEMENT B, showing separately, for each building, the cost of rent, salaries, heating, lighting, and water.

STATEMENT C, showing amounts advanced by Government for the construction of certain works of a semi-public character, under statutory authority, and after inspection by officers of this department. There were no transactions of this nature during 1912-13, and the statement is only inserted to preserve the continuity of the report from year to year.

The total expenditure during the fiscal year was $27,991,336.94, an increase of $9,147,113.04 over the expenditure of the preceding year.

The volume of work passed through the Accountant's Branch during 1913-14 may be briefly indicated as follows:—

	Number of cheques issued.	Amount.
Direct payment by departmental cheque—		
Issued by head office, Ottawa	83,277	7,702,348 14
Issued by agencies	27,589	2,177,637 38
Total departmental cheques	110,866	9,879,985 52
Payment by Receiver General's cheque, after applications issued by this office, upon the Auditor General (contract, work, etc.)	2,190	
Total expenditure	113,056	27,991,336 94

I have the honour to be, sir,
Your obedient servant,

A. G. KINGSTON,
Chief Accountant and Comptroller.

STATEMENT OF EXPENDITURE

DURING

FISCAL YEAR ENDED MARCH 31, 1914

STATEMENT A. showing the Amounts Expended by the Department of Public Works of Canada during the fiscal year ended March 31, 1914.

Name of Work.	Construction and Improvements.	Repairs.	Staff and Maintenance.	Total.
PUBLIC BUILDINGS.	$ cts.	$ cts.	$ cts.	$ cts.
Nova Scotia.				
Amherst drill hall	28,981 31			28,981 31
" post office (new)	20,065 54			20,065 54
" post office (old)	850 00	269 34		1,119 34
Annapolis post office, etc		343 14		343 14
Antigonish post office, etc		40 27		40 27
Arichat post office, etc		2 62		2 62
Baddeck public building, tower clock	1,206 95	53 30		1,260 25
Bear River post office, etc	120 95			120 95
Bridgewater post office, etc		390 22		390 22
Bridgetown post office, etc	17 00			17 00
Canning post office, etc	2,000 00			2,000 00
Canso post office, etc		118 75		118 75
Chester post office, etc	2,291 50			2,291 50
Dartmouth public building (new)	11,297 89			11,297 89
" post office, etc. (old)		375 25		375 25
Digby post office, etc		338 27		338 27
Glace Bay post office, etc		40 20		40 20
Guysborough post office, etc		2,096 31		2,096 34
Halifax Archives office		125 00		125 00
" Assistant Receiver General's office	1,648 35	41 60		1,689 95
" Citadele, new quarters for single men and recreation establishment	59 37			59 37
" customs examining warehouse	65 00			65 00
" custom-house and inland revenue	6,726 65	21 22		6,747 87
" custom-house, power for machinery			204 45	204 45
" Immigration building	2,067 69	20 60		2,088 29
" immigration detention building—stables	2,949 50			2,949 50
" immigration-power for machinery			48 90	48 90
" militia and defence building (Dennis bldg)	1,000 00			1,000 00
" postal station at north end	7,391 38			7,391 38
" post office	2,049 38	898 10		2,947 48
" post office-power for machinery			598 63	598 63
" quarantine station new buildings and improvements	5,762 54			5,762 54
" S. S. Inspector's office (dockyard)		36 25		36 25
Hantsport post office, etc	1,000 00			1,000 00
Inverness post office, etc	2,433 50	311 77		2,805 27
Kentville experimental farm		37 22		37 22
" post office, etc.—improvements *re* tower clock	1,270 06	515 18		1,815 24
Liverpool post office, etc		729 72		729 72
Lunenburg post office, etc		1,146 76		1,146 76
Middleton post office	999 02			999 02
Nappan experimental farm	920 37			920 37
New Glasgow post office, etc		550 67		550 67
North Sydney immigration building		18 46		18 46
" post office, etc.		2,525 23		2,525 23
Parrsboro post office, etc	14,528 68			14,528 68
" post office, etc., power for machinery			17 50	17 50
Pictou custom-house	550 00	121 28		671 28
" post office		246 17		246 17
Shelburne post office		304 14		304 14
Springhill post office		260 86		260 86
Stellarton post office, etc		56 95		56 95

PART II—STATEMENT A—EXPENDITURE—*Continued.*

Name of Work.	Construction and Improvements.	Repairs.	Staff and Maintenance.	Total.
PUBLIC BUILDINGS.	$ cts.	$ cts.	$ cts.	$ cts.
Nova Scotia—Concluded.				
Sydney immigration building		493 57		493 57
" inspector of fisheries—Whitney pier		132 85		132 85
" post office, etc.	2,311 11			2,311 11
Sydney Mines post office, etc		1,138 65		1,138 65
Truro post office, etc.	1,573 82	724 50		2,298 32
Westville post office, etc.		53 30		53 30
Windsor immigration building		166 35		166 35
" post office, etc.	1,430 60	99 28		1,529 88
Wolfville post office, etc	10,519 92			10,519 92
Yarmouth post office, etc.		1,449 21		1,449 21
Heating, lighting, water, etc., for all buildings in Nova Scotia (see details on page 46)			60,198 73	60,198 73
Totals, Nova Scotia	134,148 08	16,322 59	61,068 21	211,538 88
Prince Edward Island.				
Charlottetown District Engineer's office		33 00		33 00
" experimental farm.		288 00		288 00
" Marine and Fisheries building.		1,937 62		1,937 62
" post office, etc	1,820 12	934 91		2,755 03
Georgetown post office, etc.		310 79		310 79
Montague post office, etc.		161 14		161 14
Souris post office, etc.		624 63		624 63
Summerside armoury		57 18		57 18
" post office, etc.	220 31	441 03		661 34
Tignish post office, etc	5,345 13	22 35		5,367 48
Heating, lighting, water, etc., for all buildings in Prince Edward Island (for details see page 47)			11,581 23	11,581 23
Totals, Prince Edward Island	7,385 56	4,810 65	11,581 23	23,777 44
New Brunswick.				
Bathurst post office, etc.		529 30		529 30
Buctouche post office, etc.	500 00			500 00
Campbellton post office, etc	424 32	126 06		550 38
Chatham post office, etc. (addition)	2,305 62	145 74		2,451 36
" quarantine station		600 00		600 00
Dalhousie post office, etc.		742 09		742 09
Fairville post office, etc.		298 80		298 80
" post office, etc., power for machinery			30 00	30 00
Fredericton District Engineer's office		393 00		393 00
" immigration building		50 18		50 18
" public building (new).	76,434 86			76,434 86
" post office, etc. (old)		519 66		519 66
Grand Falls post office, etc.	1,714 02	20 45		1,734 47
Hampton post office, etc.	14,938 35			14,938 35
Hartland post office, etc.	7 02			7 02
Hillsborough post office, etc.		70 19		70 19
Marysville post office, etc.		45 61		45 61
Milltown post office, etc.	491 38			491 38
Moncton post office, etc.		1,087 34		1,087 34
Newcastle post office, etc	2,816 71	43 80		2,860 51
Richibucto post office, etc		543 15		543 15
St. George post office, etc	236 88			236 88
St. John custom house	14,827 15	512 42		15,339 57
" district engineer's office		16 00		16 00
" drill hall	77,081 31			77,081 31
" in migration building	2,182 64	545 00		2,727 64

PART II—STATEMENT A—EXPENDITURE—*Continued.*

Name of Work.	Construction and Improvements.	Repairs.	Staff and Maintenance.	Total.
PUBLIC BUILDINGS.	$ cts.	$ cts.	$ cts.	$ cts.
New Brunswick—(Concluded).				
St. John, Partridge Island quarantine station	26,055 79			26,055 79
" " " renewal of water system	14,914 29			14,914 29
" post office (new)	101,826 92			101,826 92
" post office (old)	3,478 20	77 02		3,555 22
" savings bank		866 40		866 40
" West immigration building		70 32		70 32
" West post office (Carleton)		657 00		657 00
St. Stephen post office, etc		259 52		259 52
Sackville, post office, etc	8,088 20	1 92		8,090 12
Shediac post office, etc	157 00			157 00
Sussex post office, etc	230 00	1,044 26		1,274 26
Tracadie Lazaretto	5,752 37	37 00		5,789 37
Woodstock post office, etc		154 69		154 69
Heating, lighting, water, etc., for all buildings in New Brunswick (for details see page 47)			49,654 13	49,654 13
Totals, New Brunswick	354,463 03	9,456 92	49,654 13	413,604 08
Quebec.				
Acton Vale post office, etc		19 27		19 27
Arthabaskaville post office, etc		2,525 25		2,525 25
Aylmer post office, etc	2,761 50	71 89		2,833 39
Beauharnois post office, etc		481 24		481 24
Beauport post office, etc	285 02			285 02
Berthierville post office, etc		89 11		89 11
Bolton Centre post office, etc. (Co Brome)		1 66		1 66
Buckingham post office, etc		53 35		53 35
Cap Rouge exp rimental farm	10,191 67			10,191 67
Chicoutimi post office, etc		208 44		208 44
Coaticook armoury	104 58			104 58
" post office, etc	2,194 01	73 41		2,267 42
Cookshire post office, etc		127 53		127 53
D'Israeli post office, etc	16 60			16 60
Drummondville post office, etc		405 95		405 95
Dundee custom-house		215 23		215 23
East Angus post office, etc	199 58			199 58
Farnham experimental farm tobacco curing station	303 34			303 34
" post office, etc		857 18		857 18
Fraserville post office, etc	629 26	61 53		690 79
Gaspé post office, etc	392 92			392 92
Granby post office, etc		591 53		591 53
Grand Mère post office, etc	4,473 18			4,473 18
Grosse Isle quarantine station, improvements	23,673 18			23,673 18
" quarantine station, new buildings	79,163 96			79,163 96
Hochelaga post office, etc	805 00	739 03		1,544 03
Hull post office		126 55		126 55
Iberville post office, etc		20 90		20 90
Joliette armoury		62 68		62 68
" post office, etc	216 34	579 76		796 10
Jonquières post office, etc	3,830 72			3,830 72
Knowlton post office and armoury		79 65		79 65
Lachine post office, etc	18,998 45	7 50		19,005 95
Lachute post office, etc		123 43		123 43
Laprairie post office, etc		343 00		343 00
L'Assomption post office, etc		18 60		18 60
Lauzon dry dock, engineer's office		18 00		18 00
L'Epiphanie Inland Revenue office		69 50		69 50
Lévis armoury and gun shed	16,746 30			16,746 30
" post office, etc	1,079 88	225 65		1,305 53
Longueuil post office, etc		145 94		145 94
Loretteville post office, etc	2,346 25			2,346 25

PART II—STATEMENT A—EXPENDITURE—*Continued.*

Name of Work.	Construction and Improvements.	Repairs.	Staff and Maintenance.	Total.
PUBLIC BUILDINGS.	$ cts	$ cts.	$ cts.	$ cts.
Quebec—Continued.				
Louiseville post office, etc	16,347 44			16,347 44
Magog post office, etc		643 69		643 69
Maisonneuve post office, etc. (see postal station "M," Montreal).				
Marieville post office, etc		936 42		936 42
Matane post office, etc	4,570 70			4,570 70
Megantic post office, etc	2,998 38	64 45		3,062 83
Montmagny post office, etc		404 17		404 17
Montreal Bonaventure station, mail room	702 05			702 05
" customs express building (old)	1,277 04	160 30		1,437 34
" custom-house	9,003 75			9,003 75
" customs office (canal)		3 80		3 80
" district engineer's office (Shaughnessy building)	974 00	177 35		1,151 35
" examining warehouse (new)	749,767 35			749,767 35
" examining warehouse (old)	4,066 56	255 98		4,322 54
" examining warehouse, power for machinery			591 96	591 96
" immigration building		185 85		185 85
" immigration, power for machinery			36 00	36 00
" Inland Revenue office	1,863 30	61 75		1,925 05
" Marine and Fisheries Agency (Shaughnessy building)		209 35		209 35
" new detention hospital	129,999 77			129,999 77
" post office (main)	176,427 31	266 45		176,693 76
" post office, power for elevator, etc			4,335 03	4,335 03
" post office, tunnel under Fortification lane	2,285 00			2,285 00
" postal station "A" St. James street	61 44	37 23		98 67
" postal station "B" Ste. Catherine West	971 74	3,723 48		4,695 22
" postal station "C" Amherst street	26,374 63	375 57		26,759 20
" postal station "D" Pte. St. Charles		649 99		649 99
" postal station "E" Mile End	1,167 85	700 00		1,867 85
" postal station "F" Notre Dame and Richmond streets	25,930 12	9 00		25,939 12
" postal station "G" St. Lawrence division	12,563 62			12,563 62
" postal station "H" to replace postal station "B"	199,915 77			199,915 77
" postal station "L" Westmount	39,937 23	8 40		39,945 63
" postal station "M" Maisonneuve	12 16			12 16
" postal station "N" 101 Ste. Catherine street east	871 78	383 36		1,255 14
" postal station "S" Emard ward	3,470 76	46 53		3,517 29
" Windsor station, mail room		401 78		401 78
Murray Bay post office, etc	70 42			70 42
Nicolet post office, etc		497 50		497 50
Nominingue immigration building	37 40			37 40
Peribonka immigration building		3 75		3 75
Pierreville post office, etc		13 86		13 86
Plessisville post office, etc		187 68		187 68
Quebec Archives office 23 St. Louis street		27 99		27 99
" Citadel, Governor General's quarters	8,417 05	9 00		8,426 05
" custom-house	14,014 19	3,917 87		17,932 06
" " power for machinery			762 17	762 17
" detention hospital		1,799 82		1,799 82
" drill hall (extension)	18,720 31			18,720 31
" East (St. Roch) post office		545 71		545 71
" " power for machinery			62 50	62 50
" examining warehouse		850 33		850 33
" " power for machinery			175 00	175 00
" immigration building (Louise Embankment) new building	185,678 19			185,678 19
" immigration building (Louise Embankment) old building		1,217 15		1,217 15
" isolated cottages in Savard Park	308 59			308 59

PART II—STATEMENT A—EXPENDITURE—*Continued.*

Name of Work.	Construction and Improvements.	Repairs.	Staff and Maintenance.	Total.
PUBLIC BUILDINGS.	$ cts.	$ cts.	$ cts.	$ cts.
Quebec—Concluded.				
Quebec Marine school—116 Mountain Hill		506 81		506 81
" observatory		40 78		40 78
" post office (enlargement)	78,137 30	4,146 02		82,283 32
" " power for machinery			1,200 00	1,200 00
" Postal Station "B"—St. Peter's street	2,591 76	192 40		2,784 16
" River St. Charles improvements—engineer's office		14 00		14 00
" St. Sauveur post office	31,866 57	26 75		31,893 32
Richmond post office, etc		100 91		100 91
Rigaud post office	2,109 85	34 84		2,144 69
Rimouski engineer's office		146 47		146 47
" post office, etc		343 11		343 11
Roberval immigration building		9 95		9 95
" post office, etc	13,895 96			13,895 96
Rock Island post office, etc	10,035 02	1 60		10,036 62
Ste. Agathe des Monts post office, etc	83 00			83 00
St. Armand custom office		198 60		198 60
St. Eustache post office, etc		204 59		204 59
St. Gabriel de Brandon post office	9,997 59	100 00		10,097 59
St. Georges East (Beauce) post office, etc		548 14		548 14
St. Henri post office, etc	1,006 80	512 70		1,519 50
St. Hyacinthe Inland Revenue building		33 45		33 45
" post office, etc		135 86		135 86
St. Jerome post office		3,457 33		3,457 33
St. John's custom-house		40 73		40 73
" post office, etc		481 09		481 09
St. Lambert post office, etc	9,557 87	3 54		9,561 41
St. Laurent post office, etc	24,845 49			24,845 49
St. Ours post office, etc	2,481 60			2,481 60
St. Romuald d'Etchemin post office, etc	31 00			31 00
St. Therese post office, etc	20,003 40	30 50		20,033 90
Shawinigan Falls post office, etc	11,738 02	116 95		11,854 97
Shawville post office, etc	1,793 60			1,793 60
Sherbrooke post office, etc	1,976 13	940 15		2,916 28
Sorel post office, etc	136 86	643 53		780 39
Sorel shipyard, Marine and Fisheries Dept		87 78		87 78
Stanstead Plain post office, etc	1,577 12			1,577 12
Terrebonne post office, etc		33 27		33 27
Thetford Mines post office, etc	1,080 74	360 69		1,441 43
Three Rivers public building (new)	891 97	596 27		1,488 24
" " post office, etc		1,260 39		1,260 39
Valleyfield post office, etc	1,830 05	247 31		2,077 36
Verdun post office, etc	10,182 67			10,182 67
Victoriaville post office, etc		733 08		733 08
Waterville post office, etc	1,615 63			1,615 63
Weedon Station post office, etc		23 05		23 05
Westmount public building—see Montreal Postal Station "L."				
Heating, lighting, water, etc., for all buildings in Quebec (for details see page 50)			251,132 27	251,132 27
Totals, Quebec	2,046,683 64	43,470 96	258,294 93	2,348,449 53
OTTAWA BUILDINGS.				
Departmental buildings—				
Customs building (new)	499,087 53			499,087 53
Eastern Block—Addition	97,266 35			97,266 35
Western Block—Elevator	8,473 07			8,473 07
Improvements in lavatories	8,933 74			8,933 74
Langevin Block—Improvements to heating apparatus	10,028 62			10,028 62

PART II—STATEMENT A—EXPENDITURE—*Continued.*

Name of Work.	Construction and Improvements.	Repairs.	Staff and Maintenance.	Total.
OTTAWA BUILDINGS—*Concluded.*	$ cts.	$ cts.	$ cts.	$ cts.
Departmental buildings—*Con.*				
Parliament buildings—Improvements	13,668 39			13,668 39
Departmental and Parliament Buildings, generally—				
Fire protection	15,705 31			15,705 31
Grounds (including Major's Hill Park)			28,603 23	28,603 23
" placing of service wires under ground	12,049 52			12,049 52
" paving	9,926 64			9,926 64
" Lover's Walk—Improvements	12,894 21			12,894 21
" removal of snow			2,225 38	2,225 38
Power for elevators			10,052 81	10,052 81
Rewiring of Parliament and departmental buildings	43 78			43 78
Repairs and furniture		374,848 54		374,848 54
Steel fittings	51,369 03			51,369 03
Telephone service			32,908 80	32,908 80
Sites for new departmental buildings—				
Sussex street	10,679 13			
Wellington street east	4,220 24			1,519,599 22
Wellington street west	1,504,699 85			
Astronomical Observatory	30,481 09			30,481 09
Experimental Farm	78,018 83			78,018 83
Fuel testing building	4,408 79			4,408 79
Mines building (Sussex street)	13,544 14			13,544 14
National Art Gallery (pictures)	98,861 58		720 00	99,581 58
Printing Bureau	7,000 29			7,000 29
Royal Mint—Refinery (additional story)	4,318 75			4,318 75
Ridean Hall	182,854 46	29,551 29	51,249 54	263,655 29
Grounds 22,321 82				
Snow 1,740 64			34,282 46	34,282 46
Fuel and light 9,500 00				
Watchman 720 00				
Victoria Memorial Museum	16,026 84			16,026 84
Heating, lighting, water, etc. for all buildings in Ottawa, (for details, see page 50)			536,125 24	536,125 24
Totals, Ottawa buildings	2,694,560 18	404,399 83	696,167 46	3,795,127 47
PUBLIC BUILDINGS.				
Ontario.				
Acton post office, etc	16,167 27			16,167 27
Alexandria post office, etc		581 35		581 35
Almonte post office, etc	3,432 63	884 22		4,316 85
Amherstburg post office, etc		1,257 51		1,257 51
Arnprior post office, etc		22 19		22 19
Athens post office, etc	6,469 17			6,469 17
Aurora post office, etc	2,360 69			2,360 69
Alymer West post office, etc	24,364 00			24,364 00
Barrie drill hall	183 95			183 95
Barrie post office—Addition	18,041 32	382 80		18,424 12
Belleville post office, etc		481 35		481 35
Berlin post office, etc	275 43	168 92		444 35
Bowmanville post office, etc	678 90	89 10		768 00
Bracebridge post office, etc	24,825 92			24,825 92
Brampton post office, etc	5,001 10	85 28		5,086 38
Brantford armoury, parade ground		250 00		250 00
" drill hall (new)	15,778 46			15,778 46
" public building (new)	169,985 65			169,985 65
" post office etc. (old)		355 14		355 14
Bridgeburg post office, etc		956 48		956 48
Brockville post office, etc	3,000 65	905 14		3,905 79
Brussels post office, etc	15 00			15 00
Burford post office, etc	2,034 15			2,034 15

Part II—Statement A—Expenditure—*Continued.*

Name of Work.	Construction and Improvements.	Repairs.	Staff and Maintenance.	Total.
Public Buildings.	$ cts.	$ cts.	$ cts.	$ cts.
Ontario—Continued.				
Burk's Falls post, etc	1,175 05			1,175 05
Caledonia post office, etc		62 13		62 13
Campbellford post office, etc	15 26			15 26
Carleton Place post office, etc	3,980 00	204 08		4,184 08
Cayuga post office, etc		17 00		17 00
Chatham drill hall		2 50		2 50
Chatham post office, etc		510 60		510 60
Chesley post office, etc	10,951 11			10,951 11
Clinton post office, etc	144 00	61 05		205 05
Cobalt post office, etc		453 83		453 83
Cobourg immigration building		62 25		62 25
" post office, etc		514 03		514 03
Collingwood post office, etc	31,931 39			31,931 39
Cornwall post office, etc		102 79		102 79
Deseronto post office, etc		16 43		16 43
Dresden post office, etc	4,841 59	26 25		4,867 84
Dundas post office, etc	30,010 73			30,010 73
Dunnville post office, etc	7,353 99			7,353 99
Durham post office, etc	132 00			132 00
Eganville post office, etc	10,187 95			10,187 95
Elmira post office, etc	2,960 63			2,960 63
Elora post office, etc		917 06		917 06
" post office, etc., power for machinery			7 95	7 95
Elmwood post office, etc		49 30		49 30
Essex post office, etc	1,547 94	8 80		1,556 74
Exeter post office, etc	3,021 50			3,021 50
Fergus post office, etc		715 33		715 33
" post office, etc., power for machinery			25 85	25 85
Forest post office, etc	1,954 45			1,954 45
Fort Frances post office, etc	1,546 58	4 80		1,551 38
Fort William customs examining warehouse	16,342 05			16,342 05
" drill hall	181 67			181 67
" immigration building		72 00		72 00
" post office, etc	764 91	371 35		1,136 26
Galt drill hall	136 70			136 70
" post office, etc	874 69	129 55		1,004 24
Gananoque custom-house		15 30		15 30
" post office, etc	24,595 56	54 42		24,649 98
Georgetown post office, etc	1,303 58			1,303 58
Glencoe post office, etc		13 50		13 50
Goderich post office, etc		93 50		93 50
Gore Bay immigration building		5 00		5 00
Gravenhurst post office, etc	1,242 11			1,242 11
Grimsby post office, etc	15,097 35			15,097 35
Guelph experimental farm		35 05		35 05
" post office, etc		1,200 57		1,200 57
Hamilton custom house (old)		58 03		58 03
" examining warehouse	55 31			55 31
" inland revenue		338 97		338 97
" Postal Station "B"	12,719 15	13 51		12,732 66
" post office, etc.—Enlargement and improvements	120,283 90	1,095 95		121,379 85
" post office, etc., power for machinery			44 04	44 04
Hanover post office, etc	807 07			807 07
Harriston post office, etc		896 27		896 27
Hawkesbury post office, etc		36 32		36 32
Hespeler post office, etc	3,090 15			3,090 15
Huntsville post office, etc	2,028 00			2,028 00
Ingersoll drill hall	6,693 85			6,693 85
" post office—Addition	232 81	69 51		302 32
Kemptville post office, etc	8,313 27			8,313 27
Kenora post office, etc		550 80		550 80
Kincardine post office, etc		432 99		432 99

PART II—STATEMENT A—EXPENDITURE—*Continued.*

Name of Work.	Construction and Improvements.	Repairs.	Staff and Maintenance.	Total.
PUBLIC BUILDINGS.	$ cts.	$ cts.	$ cts.	$ cts.
Ontario - Continued.				
Kingston custom-house		2,051 40		2,051 40
" post office	15,215 74	1,250 99		16,466 73
" post office and custom-house—Improvements of grounds, etc	5,999 24			5,999 24
Kingston R.M. College, additional dormitory accomodation for cadets	62,053 69			62,053 69
Kingsville post office, etc	408 43			408 43
Lakefield post office, etc	644 85			644 85
Leamington post office, etc	664 91	11 95		679 86
Lindsay post office, etc	1,355 20	160 32		1,515 52
Listowel post office, etc		3,209 68		3,209 68
London custom-house	5,057 49	929 32		5,986 81
" immigration building		13 81		13 81
" post office	130,332 28	829 32		131,161 60
Markham post office—Additional land	1,215 25			1,215 25
Midland post office, etc	40,407 07	64 50		40,471 57
Mildmay post office, etc	1,318 25			1,318 25
Millbrook post office, etc	1,121 45			1,121 45
Milton post office, etc	517 45			517 45
Milverton post office, etc	1,066 61			1,066 61
Mitchell post office, etc	4,533 92	52 45		4,586 37
Morrisburg post office, etc	2,508 40			2,508 40
Mount Forest post office, etc		1,590 20		1,590 20
Napanee drill hall	161 93			161 93
" post office, etc.—Electric wiring	46 68	146 25		192 93
New Hamburg post office, etc	36 60			36 60
Newmarket post office, etc	4,259 65			4,259 65
Niagara Falls armoury	6,535 05			6,535 05
" post office, etc	2,512 76	682 54		3,195 30
North Bay post office, etc		393 88		393 88
Norwich post office, etc	1,808 50			1,808 50
Orangeville post office, etc		1,063 57		1,063 57
Orillia post office, etc—Addition	609 30	48 55		657 85
Oshawa post office—Addition	5,423 61	114 25		5,537 86
Owen Sound drill hall	99 10			99 10
" post office, etc		184 49		184 49
Palmerston post office, etc	3,008 99			3,008 99
Paris post office, etc—Addition	12,953 44			12,953 44
Parkhill post office, etc		43 70		43 70
Parry Sound post office, etc	5,880 45	18 00		5,898 45
Pembroke drill hall	889 02			889 02
" post office, etc	13,045 74	133 65		13,179 39
Perth post office, etc	3,198 34	20 00		3,218 34
Peterborough custom-house—Extension	514 39	98 35		612 74
" drill hall		3 00		3 00
" new public building—Customs and Inland Revenue	15,085 04			15,085 04
" post office	4,201 00	730 57		4,931 57
Petrolea post office, etc		42 18		42 18
Picton post office, etc		906 61		906 61
Port Arthur armoury and drill hall	101,051 63			101,051 63
" customs examining warehouse	1,119 07			1,119 07
" district engineer's office		141 05		141 05
" immigration building		79 02		79 02
" post office	6,957 59	381 62		7,339 21
Port Colborne post office, etc	431 75	247 30		679 05
Port Hope post office, etc		938 59		938 59
Port Perry post office, etc	13,610 53			13,610 53
Prescott custom-house		127 64		127 64
" Marine and Fisheries building		196 81		196 81
" post office—New boilers, etc	1,000 00	199 76		1,199 76
Preston post office, etc	8,754 09			8,754 09
Renfrew post office, etc	4,009 14	133 35		4,142 49

PART II—STATEMENT A—EXPENDITURE—*Continued.*

Name of Work.	Construction and Improvements	Repairs.	Staff and Maintenance.	Total.
PUBLIC BUILDINGS.	$ cts.	$ cts.	$ cts.	$ cts.
Ontario—Continued.				
St. Catharines post office, etc.		340 40		340 40
St. Mary's post office, etc		158 28		158 28
St. Thomas post office, etc.	1,237 66	384 56		1,622 22
Sandwich post office, etc		9 30		9 30
Sarnia drill hall		25 20		25 20
" immigration building.		34 50		34 50
" post office, etc.	1,628 27	475 70		2,103 97
Sault Ste Marie immigration building.		25 00		25 00
" post office, etc.	11,995 72	701 15		12,696 87
Seaforth post office, etc	7,169 46	19 90		7,189 36
Shelburne post office, etc.	5,452 65			5,452 65
Simcoe post office, etc		221 98		221 98
Smiths Falls post office, etc	130 90	73 23		204 13
Southampton post office, etc.	1,003 64			1,003 64
Steelton post office, etc.	6,346 21			6,346 21
Stratford post office, etc	2,078 22	346 77		2,424 99
Strathroy entomology station		23 60		23 60
Strathroy post office, etc.		178 37		178 37
Sudbury post office, etc	5,792 14			5,792 14
Tilbury post office, etc	11,456 83			11,456 83
Tilsonburg post office, etc.	5,480 53	46 20		5,526 73
Thorold custom-house		323 67		323 67
Toronto customs examining warehouse	215,026 80	102 58		215,129 38
" " " power for machinery			168 00	168 00
" custom house	556 22	656 10		1,212 32
" " power for elevators.			141 36	141 36
" express customs office.		294 13		294 13
" immigration building		129 30		129 30
" Inland Revenue building	1,331 41	249 67		1,581 11
" " " power for machinery			17 16	17 16
" Marine and Fisheries agency		161 82		161 82
" meteorological observatory.		105 40		105 40
" military buildings (barracks)	2,797 97			2,797 97
" military building (new stores buildings)	2,162 31			2,162 31
" postal motor garage (Richmond St.), power for machinery			165 88	165 88
" post office garage for motor trucks (Duchess St.)	218 29			218 29
" post office (present building)	6,855 11	15,928 73		22,783 84
" post office power for elevators			358 64	358 64
" post office (site for enlargement)	733,334 30			733,334 30
" postal station "A"	1,526 05	732 34		2,258 39
" postal station "A," power for machinery			161 60	161 60
" postal station "B"		10 70		10 70
" postal station "C"		304 81		304 81
" postal station "D"	809 39	586 40		1,395 79
" postal station "E"	30,657 84	310 23		30,968 07
" postal station "F"		542 02		542 02
" postal station "G" (East)	24,596 10	52 37		24,648 47
" postal station "G," power for machinery			14 02	14 02
" postal station "H"		533 40		533 40
" postal station "K" (North)	2,417 00	56 17		2,473 17
" steamship inspector's office		286 10		286 10
" railway commissioner's office (Temple building)		220 85		220 85
Trenton post office, etc.	23 06	205 86		228 92
Uxbridge post office, etc.	12,317 62	34 25		12,351 87
Walkerton post office, etc.		584 57		584 57
Walkerville post office, etc	504 76			504 76
Wallaceburg post office, etc.	8 19	1 00		9 19
Waterloo post office, etc	7,720 00	28 81		7,748 81
Watford post office, etc.	65 20			65 20

PART II—STATEMENT A—EXPENDITURE—*Continued.*

Name of Work.	Construction and Improvements.	Repairs.	Staff and Maintenance.	Total.
PUBLIC BUILDINGS.	$ cts.	$ cts.	$ cts	$ cts.
Ontario—Concluded.				
Welland post office, etc	251 62	244 98		496 60
West Lorne post office, etc	1,026 60			1,026 60
Weston post office, etc	28 20			28 20
Whitby post office, etc		17 60		17 60
Wiarton post office, etc	97 97			97 97
Windsor Ferry Dock custom-house		246 66		246 66
" post office, etc	2,032 45	250 25		2,282 70
Wingham post office, etc	4,213 02	32 35		4,245 37
Woodstock post office, etc		726 21		726 21
Heating, lighting, water, etc., for all buildings in Ontario, exclusive of Ottawa (for details see page 52)			200,710 21	200,710 21
Totals, Ontario (exclusive of Ottawa)	2,224,863 95	59,895 44	201,814 71	2,486,574 10
Manitoba.				
Boissevain post office, etc	4,782 85			4,782 85
Brandon experimental farm	18,849 80			18,849 80
" immigration building		466 42		466 42
" post office—Addition	42,863 96	183 32		43,047 28
Carberry post office, etc	55 48			55 48
Carman post office, etc	7,973 24			7,973 24
Dauphin Forestry Branch office (Malcolm building)		79 75		79 75
" post office, etc	2,886 25	62 25		2,948 50
Elkhorn post office, etc	1,882 95			1,882 95
Emerson immigration building		100 82		100 82
" post office, etc		259 15		259 15
" post office, power for machinery			4 30	4 30
Gretna post office, etc	3,041 85			3,041 85
Kellwood forestry office		8 50		8 50
Manitou post office, etc	1,192 10			1,192 10
Melita post office, etc	36 15			36 15
Minnedosa post office, etc	40,091 82			40,091 82
Mordon post office, etc	35,124 15			35,124 15
Neepawa post office, etc		246 59		246 59
Oak Lake post office, etc	2,284 05			2,284 05
Portage la Prairie armoury		427 33		427 33
" " post office		1,227 46		1,227 46
Rivers post office, etc	13 30			13 30
St. Boniface post office, etc		389 93		389 93
" power for machinery			17 56	17 56
St. James drill hall	6,191 69			6,191 69
Selkirk post office, etc		69 50		69 50
Souris drill hall	26 45			26 45
" post office, etc		761 45		761 45
Sprague custom-house		123 00		123 00
Stonewall post office, etc	3,497 65			3,497 65
Virden post office, etc	21,343 22			21,343 22
Whitewater forestry office		146 73		146 73
Winnipeg Assistant Receiver General's office	1,798 82			1,798 82
" custom-house	4,235 10	663 18		4,898 28
" custom-house, power for machinery			108 06	108 06
" drill hall	87,175 81			87,175 81
" examining warehouse	6,044 85	526 11		6,570 96
" examining warehouse, power for machinery			187 32	187 32
" grain exhibit building (immigration building No. 5.)	5,486 81	13 80		5,500 61
" immigration buildings	1,944 53	4,814 45		6,758 98
" immigration building, power for elevators			46 84	46 84
" Indian Affairs and Weights and Measures office (Bawlf Block)	830 17	19 99		850 16
" post office	20,726 83	386 35		21,113 18

PART II—STATEMENT A—EXPENDITURE—*Continued.*

Name of Work.	Construction and Improvements.	Repairs.	Staff and Maintenance.	Total.
PUBLIC BUILDINGS.	$ cts.	$ cts.	$ cts.	$ cts.
Manitoba—Continued.				
Winnipeg post office, power for machinery			422 31	422 31
" postal station "A"	1,360 95	121 36		1,482 31
" postal station "B"		271 97		271 97
" postal station "C" (south)	18,549 25	824 57		19,373 82
" postal station power for machinery			8 72	8 72
" postal station "D" (west)	35,766 92	101 05		35,867 97
" Railway Commissioner's office	774 30	96 99		871 29
Heating, lighting, water, etc., for all buildings in Manitoba (for details see page 53)			81,070 83	81,070 83
Totals, Manitoba	376,831 30	12,392 02	81,865 94	471,089 26
Saskatchewan.				
Alsask immigration building		36 75		36 75
Battleford post office, etc	1,481 27	92 99		1,574 26
Biggar immigration building	103 00			103 00
Canora post office, etc	45 35			45 35
Carlyle forestry office		67 19		67 19
Estevan post office, etc	506 52	529 29		1,035 81
Gravelbourg post office, etc		174 60		174 60
Hudson Bay Junction post office, etc		37 75		37 75
Humboldt Dominion Lands office		25 20		25 20
" post office, etc	14,798 45	434 60		15,233 05
Indian Head experimental farm	27,818 17			27,818 17
" forestry branch office	5,682 28	109 00		5,791 28
Jedborough forestry station		70 02		70 02
Kindersley post office, etc	24 50			24 50
Lloydminster immigration building		1 00		1 00
" post office, etc	8,466 33	11 70		8,478 03
Macklin immigration building		214 05		214 05
Maple Creek Dominion Lands office		72 88		72 88
" immigration building		55 98		55 98
" post office, etc		1,740 93		1,740 93
Melfort post office, etc	18,445 52	19 05		18,464 57
Moosejaw Customs examining warehouse	50,055 80			50,055 80
" Dominion Lands office		363 60		363 60
" immigration hall	22,149 05	22 95		22,172 00
" new public building	123,029 20			123,029 20
" post office		762 05		762 05
North Battleford immigration building		23 10		23 10
" post office, etc	65,114 12	4 04		65,118 16
North Portal immigration building	153 00			153 00
Prince Albert Dominion Lands office		248 26		248 26
" drill hall	12 03			12 03
" forestry branch office (Baker building)	531 90	88 25		620 15
" immigration building		41 00		41 00
" post office, etc	1,028 82	2,420 04		3,448 86
Regina, accommodation for assistant Receiver General	50,035 02			50,035 02
" armoury and drill hall	208 74			208 74
" customs examining warehouse	65,449 26	7 80		65,457 06
" Dominion Lands office		622 43		622 43
" immigration building		58 20		58 20
" post office (fittings, etc.)	8,126 31	304 00		8,430 31
" post office, power for machinery			262 50	262 50
Rosthern experimental farm	652 17			652 17
Saskatoon customs examining warehouse	19 25			19 25
" forestry nursery station	28,738 84			28,738 84
" immigration building		19 60		19 60
Saskatoon Inland Revenue office		214 70		214 70
" post office (old)—addition	3,565 37	298 20		3,863 57
" public building (new)	100,045 55			100,045 55

PART II—STATEMENT A—EXPENDITURE—*Continued.*

Name of Work.	Construction and Improvements.	Repairs.	Staff and Maintenance.	Total.
PUBLIC BUILDINGS.	$ cts.	$ cts.	$ cts.	$ cts.
Saskatchewan—Continued.				
Scott experimental farm	606 53			606 53
Swift Current dominion lands office		77 86		77 86
" " post office, etc	25,042 41	245 48		25,287 89
Tisdale immigration building		22 50		22 50
Unity immigration building	100 60	2 30		102 90
Wadena immigration building	3,351 00	187 45		3,538 45
Weyburn post office, etc	37,651 23	12 55		37,663 78
Wilkie immigration building	5 50	18 00		23 50
" post office, etc	10,074 03			10,074 03
Yonkers immigration building		18 00		18 00
Yorkton immigration building		8 01		8 01
" post office, etc		993 47		973 47
Heating, lighting, water, etc., for all buildings in Saskatchewan (for details see page 55)			65,928 81	65,928 81
Totals, Saskatchewan	673,117 12	10,756 82	66,191 31	750,065 25
Alberta.				
Athabaska Landing immigration hall	3,794 00	186 50		3,980 50
Banff Dominion Parks building		239 89		239 89
Bassano post office, etc	84 52			84 52
Calgary accommodation for Assistant Receiver Gen'l.	50,000 00			50,000 00
" Customs examining warehouse	284,931 24	436 12		285,367 36
" Forestry and Irrigation branches building	35,040 00			35,040 00
" gas and electric inspector's office (Cadogan building)		145 10		145 10
" immigration building	17,978 54	180 04		18,158 58
" Irrigation Commissioner's office (Leeson & Lineham building)	2,196 68	899 73		3,096 41
" post office (new)	37,195 24			37,195 24
" post office (old)	561 31	796 13		1,357 44
" post office, power for machinery			237 50	237 50
" Railway Commissioner's office (Bonner bld'g)		69 65		69 65
" temporary post office	1,623 43	435 44		2,058 87
" temporary post office, power for machinery			50 00	50 00
Castor post office, etc	65 30			65 30
Edmonton customs examining warehouse	63,126 75			63,126 75
" Dominion lands office	738 68	220 61		959 29
" drill hall (new)	638 60			638 60
" immigration building		573 46		573 46
" Inland Revenue office		165 00		165 00
" meteorological station		18 00		18 00
" post office	3,492 96	5,550 99		9,043 95
" post office, power for machinery			705 95	705 95
Edson immigration building		1 80		1 80
Grand Prairie Dominion lands office		148 00		148 00
Gronard Dominion lands office	860 75	127 45		988 20
High River post office, etc	2,284 05			2,284 05
Hinton forestry office		52 73		52 73
Jasper Park—Superintendent's building		84 95		84 95
Lacombe experimental farm	476 31			476 31
Lethbridge custom-house and Dominion Lands office		228 81		228 81
" experimental farm	3,205 07			3,205 07
" immigration building		205 23		205 23
" inland revenue (Hull block)		41 43		41 43
" post office		182 47		182 47
" public building (new)	147,621 15			147,621 15
Macleod custom-house		17 15		17 15
post office	26 65			26 65

PART II—STATEMENT A—EXPENDITURE—*Continued.*

Name of Work.	Construction and Improvements.	Repairs.	Staff and Maintenance.	Total.
PUBLIC BUILDINGS.	$ cts.	$ cts.	$ cts.	$ cts.
Alberta—Continued.				
Medicine Hat Dominion Lands office		16 00		16 00
" " immigration building	31 55	48 73		80 28
" " post office, etc	2,386 51	1,788 79		4,175 33
North Cooking Lake forest ranger's office		51 42		51 42
Red Deer post office, etc	1,574 42	326 53		1,900 95
Strathcona armoury	186 81			186 84
" immigration building		27 85		27 85
" post office, etc	6,098 29	314 48		6,412 68
Vegreville immigration building		664 97		664 97
" post office, etc	67 89			67 89
Vermilion immigration building		359 00		359 00
" post office, etc	10,138 39	409 22		10,547 61
Viking immigration building		6 50		6 50
Wainwright Buffalo Park—Superintendent's office		55 00		55 00
" post office, etc	3,341 30			3,344 30
Wetaskiwin post office, etc	4,818 21	87 45		4,905 66
Heating, lighting, water, etc., for all buildings in Alberta (for details see page 56)			70,862 75	70,862 75
Totals, Alberta	684,587 57	15,162 62	71,856 20	771,606 39
British Columbia.				
Alberni Indian office		51 90		51 90
Agassiz experimental farm	10,724 35			10,724 35
Anyox custom-house		63 35		63 35
Ashcroft post office, etc	72 24	369 90		442 14
Atlin post office, etc		341 60		341 60
Chilliwack post office, etc	13,549 90	10 65		13,560 55
Comox post office, etc	2,189 92			2,189 92
Coquitlam post office, etc	3,129 15			3,129 15
Courtenay post office, etc	146 00			146 00
Cranbrook post office, etc	4,173 55	132 29		4,305 84
Cumberland post office, etc		73 60		73 60
Duncan Station post office, etc	36,738 57			36,738 57
Fernie post office, etc		93 70		93 70
Golden post office, etc	3,558 39			3,558 39
Grand Forks post office, etc	20,197 41	26 00		20,223 41
Greenwood post office, etc	17,552 06			17,552 06
Huntington custom-house		2 00		2 00
Kamloops drill hall	89 46			89 46
" forestry office		60 83		60 83
" post office, etc		738 11		738 11
Kelowna post office, etc	20,143 70	89 15		20,232 85
Ladysmith post office, etc		2 00		2 00
Merritt post office, etc	154 59			154 59
Mission City post office, etc	3,683 24			3,683 24
Nanaimo post office, etc	24,847 98	160 80		25,008 78
Nelson post office, etc	1,130 43			1,130 43
New Hazelton post office, etc	5 93			5 93
New Westminster Fisheries and Indian offices		118 55		118 55
" " post office	22,564 07	776 72		23,340 79
" " post office power for machinery			47 50	47 50
North Vancouver post office, etc	21,209 28	118 41		21,327 69
Ocean Falls custom-house		140 47		140 47
Penticton post office	15,030 93			15,030 93
Port Alberni Indian office		99 45		99 45
" post office, etc	315 90			315 90
Prince Rupert drill hall	80 00			80 00
" immigration detention building	225 38			225 38
" quarantine station	28,543 98			28,543 98
" post office, etc	39,323 47	365 20		39,688 67

PART II—STATEMENT A—EXPENDITURE—*Continued.*

Name of Work.	Construction and Improvements.	Repairs.	Staff and Maintenance.	Total.
PUBLIC BUILDINGS.	$ cts.	$ cts.	$ cts.	$ cts.
British Columbia—Continued.				
Revelstoke district engineer's office	967 63			967 63
" post office, etc	27 47	61 50		88 97
Rossland post office		288 92		288 92
Soda Creek post office		13 75		13 75
Stikeen Indian agency office		20 85		20 85
Telegraph Creek Indian agency office		204 50		204 50
Trail post office, etc	69 90			69 90
Union Bay, post office, etc	7,122 75	1 50		7,124 25
Vancouver detention building (new)	33,744 35			33,744 35
" drill hall	139,983 00			139,983 00
" examining warehouse	75,677 12	119 11		75,796 23
" " power for machinery			276 00	276 00
" immigration building		130 30		130 30
" labour department office		150 40		150 40
" post office	13,918 89	3,051 82		16,970 71
" " power for machinery			458 60	458 60
" " (old)	18,047 83	318 30		18,366 13
" postal station "B"	34,798 44	186 03		34,984 47
" " "C"	15,474 05	24 00		15,498 05
" (south) postal station "D"	10,510 00			10,510 00
" sulphur dioxide fumigating plant	211 75			211 75
Vernon post office, etc	5,726 67	23 25		5,749 92
Victoria drill hall	29,730 46			29,730 46
" examining warehouse (Amos Molden building)		309 47		309 47
" examining warehouse (Amos Molden building) power for machinery			131 16	131 16
" immigration detention hospital	490 91	493 61		984 52
" marine and Indian offices		274 13		274 13
" observatory	12,001 84			12,001 84
" " power for machinery			60 82	60 82
" post office (new)	27,761 07	4,081 67		31,842 74
" " power for machinery			437 04	437 04
" post office (old)	13,721 29	1,398 45		15,119 74
" sulphur dioxide fumigating plant	219 25			219 25
" temporary examining warehouse	1,449 37			1,449 37
" " power for machinery			39 63	39 63
White Rock immigration building		74 20		74 20
Williams Head quarantine station	81,856 09	180 00		82,036 09
Heating, lighting, water, etc., for all buildings in British Columbia (for details see page 57)			97,504 21	97,504 21
Totals, British Columbia	812,890 01	15,240 44	98,954 96	927,085 41
Yukon Territory.				
Caicross custom-house	113 00			113 00
Dawson Government House	6,022 41			6,022 41
White Horse post office, etc	2,532 30			2,532 30
Heating, lighting, water, etc., for all buildings in Yukon Territory			80,732 55	80,732 55
Totals, Yukon Territory	8,667 71		80,732 55	89,400 26
Public Buildings Generally.				
Advertising coal tenders, Dominion buildings			2,444 78	2,444 78
Fittings and furniture generally (stock)	13,545 91			13,545 91
Flags for Dominion public buildings			1,100 45	1,100 45
Printing, stationery, instruments, travelling, etc			31,358 04	31,358 04
Rural mail sorting cases and P.O. signs	18,463 99			18,463 99
Salaries of resident clerks of works			42,233 43	42,233 43
Totals, Public Buildings generally	32,009 90		77,136 70	109,146 60

SESSIONAL PAPER No. 19

PART II—STATEMENT A—EXPENDITURE—*Continued.*

Name of Work.	Dredging.	Construction and Improvements.	Repairs.	Staff and Maintenance.	Total.
HARBOURS AND RIVERS.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Nova Scotia.					
Amaguadees Pond (Castle Bay) roadway		300 00			300 00
Amherst Harbour improvements	4,749 88	20,244 28			24,994 16
Anderson's Cove breakwater		2,000 80			2,000 80
Annapolis ice piers		20,115 70			20,115 70
Antigonish wharf		998 96			998 96
Arichat retaining wall		393 49			393 49
Arisaig wharf		1,854 82	382 80		2,237 62
Arnold's Cove		13,004 59			13,004 59
Avonport breakwater			300 00		300 00
Avon River, extension of breakwater		2,973 00			2,973 00
Baddeck wharf	15 00		59 18		74 18
Bailey's Brook, removal of boulders		200 85			200 85
Baker's Point wharf			98 20		98 20
Ballantine's Cove (Antigonish)		3,223 27			3,223 27
Barrington's Cove (see Sydney Mines)					
Battery Point breakwater		681 51			681 51
Baxter's Harbour breakwater		2,998 22			2,998 22
Bayfield Harbour breakwater, wharf		2,499 91			2,499 91
Bay St. Lawrence, boat harbour		4,012 22			4,012 22
Bayswater breakwater		17 55			17 55
Bear Cove breakwater extension		1,496 79			1,496 79
Bear Point breakwater extension		1,927 39			1,927 39
Bear River wharf		2,838 52			2,838 52
Beaver breakwater extension		1,999 35			1,999 35
Beaver Harbour wharf		2,137 76			2,137 76
Black Point breakwater			730 87		730 87
Black Rock ferry landing		998 57			998 57
Blanche breakwater		752 53			752 53
Blantford breakwater		109 82			109 82
Blondin (see Whitewater)					
Blue Rocks breakwater (Lunenberg)		601 66			601 66
" " (Antigonish)			1,199 93		1,199 93
Bluff Head breakwater		3,367 81			3,367 81
Boisdale new wharf		2 28			2 28
Boularderie Centre wharf			74 50		74 50
Breen's Pond breakwater		23 69			23 69
Bridgewater, dredging	241 33				241 33
Broad Cove Marsh wharf			199 56		199 56
Brooklyn breakwater		93,250 30	499 20		93,749 50
Brulé wharf		2,032 73			2,032 73
Burk's Head breakwater		4,605 50			4,605 50
Cabbage Gut, dredging	508 00				508 00
Caldwell's Cove breakwater		77 31			77 31
Canso, dredging	5,179 45				5,179 45
Cape Negro (Swain's Cove) wharf		1,489 49			1,489 49
Cape St. Mary breakwater		699 63			699 63
Caribou Island causeway		980 54			980 54
Carr's Brook wharf		9,436 82			9,436 82
Carter's Pond boat channel		646 12			646 12
Centreville (Cape Island) wharf			788 28		788 28
" (Trout Cove) breakwater		37,915 49			37,915 49
Chebogue Town Point, wharf			1,099 57		1,099 57
Chester, canal	328 10	1,856 65			2,184 75
Cheticamp wharf	15,262 66		174 75		15,437 41
Cheverie breakwater and wharf		114 31	2,265 28		2,379 59
Church Point, wharf			311 43		311 43
Clark's Harbour, dredging	1,168 00				1,168 00
Coffin's Island, dredging	1,459 10				1,459 10
Cole Harbour, wharf		1 31			1 31
Comeau's Cove, breakwater		179 66	117 61		297 27
Comeau's Hill, breakwater			649 49		649 49
Cottage Cove, breakwater		3,264 15			3,264 15

PART II—STATEMENT A—EXPENDITURE—*Continued.*

Name of Work.	Dredging.	Construction and Improvements.	Repairs.	Staff and Maintenance.	Total.
HARBOURS AND RIVERS.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Nova Scotia—Continued.					
Cunningham's Point, wharf			508 42		508 42
Delorey's Beach, breakwater			26 63		26 63
D'Escousse, wharf	5,184 05		270 75		5,454 80
Devil's Island, breakwater		11,127 18			11,127 18
Digby Harbour	50,487 71		1,568 65		52,056 36
Diligent River, wharf		249 99			249 99
Eagle Head, breakwater		1,671 05			1,671 05
East Bay (north side) wharf			1,155 66		1,155 66
East Chezzetcook, breakwater		4,494 83			4,494 83
Eastern Harbour (see Cheticamp)					
Eastern Passage, breakwater			700 47		700 47
Eastern Point (Lunenburg Co)	499 90				499 90
East Ferry, wharf		79 48			79 48
East Jeddore, dredging	1,235 41				1,235 41
East Jordan, breakwater			3,019 32		3,019 32
East River (Pictou County)		51,045 34			51,045 34
East Ship Harbour, wharf		3,500 01			3,500 01
Ecum Secum, wharf		87 76			87 76
Englishtown, wharf			913 92		913 92
Evan's Point, breakwater		29 85			29 85
Falls Point (see Woods Harbour)					
Feltzen South (Spindler's Cove) breakwater		15,045 10			15,045 10
Finlay Point, wharf			499 78		499 78
Fox Island, breakwater			1,199 98		1,199 98
Fox Point, breakwater		21 68			21 68
Free Port, breakwater		97 67			97 67
French River (North shore) breakwater		4,780 00			4,780 00
French Village, wharf			386 98		386 98
Friar's Head, concrete wall			251 56		251 56
Fruid's Point, wharf		3,796 13			3,796 13
Gabarus, breakwater (warehouse)		599 77			599 77
" Harbour, beach protection		1,499 97			1,499 97
Georgeville, wharf			430 09		430 09
Glace Bay, beach protection		1,998 14			1,998 14
Goat Island, wharf		69 04			69 04
Grand Etang, breakwater			1,187 03		1,187 03
Grand Narrows, wharf			100 00		100 00
Great Village, wharf			599 64		599 64
Grosses Coques, breakwater		3,997 54			3,997 54
Halifax, dry dock (new)		3,386 69			3,386 69
Hall's Harbour, breakwater			764 72		764 72
Hantsport, wharf		1,946 83			1,946 83
Harbour au Bouche, wharf		677 02	1,002 06		1,679 08
Harrigan Cove, wharf			189 79		189 79
Herring Rocks (see Port Joli)					
Horton Landing, wharf			906 20		906 20
Inverness, harbour improvements		836 66			836 66
Iona, wharf			500 35		500 35
Irish Cove, wharf			199 86		199 86
Jeddore, Oyster Ponds, wharf		137 60	168 26		305 86
Jones Harbour, dredging	2,498 00				2,498 00
Kelly's Cove, extension of breakwater		149 93			149 93
Kingsport, repairs to pier			100 25		100 25
Kraut Point, wharf		1,533 09	150 00		1,683 09
Lakevale, dredging	18,871 69				18,871 69
L'Ardoise, breakwater			1,300 00		1,300 00
Larry's Cove, dredging	596 74				596 74
Leonard's Cove, breakwater		1,184 04			1,184 04
Lingan Beach, protection work			3,999 99		3,999 99
Litchfield, breakwater		1,472 21			1,472 21
Little Anse, breakwater		6,666 00			6,666 00
Little Bras d'Or, breakwater	22,721 86	12,655 00			35,376 86

SESSIONAL PAPER No. 19

PART II—STATEMENT A—EXPENDITURE—*Continued.*

Name of Work.	Dredging.	Construction and Improvements.	Repairs.	Staff and Maintenance.	Total.
HARBOURS AND RIVERS.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Nova Scotia—Continued.					
Little Lorraine, dredging	12,910 37				12,910 37
Little Narrows (South wharf)			242 80		242 80
Little River breakwater, wharf		187 55			187 55
Liverpool, dredging	10,446 30				10,446 30
Livingston's Cove, breakwater		999 20			999 20
Lockeport (Shelburne Co.,) dredging	36,876 35				36,876 35
Long Beach Pond, protection work		300 00			300 00
Long Cove, breakwater		3,628 28			3,628 28
Louis Head, breakwater			698 48		698 48
Lower l'Ardoise beach, protection		31 32			31 32
Lower Prospect, wharf		1,482 51			1,482 51
Lower Ship Harbour, wharf			489 75		489 75
Lower West Pubnico, breakwater			775 57		775 57
McAra's Brook, boat landing		1,616 77			1,616 77
McKay's Point (Judique) breakwater			98 50		98 50
McNair's Cove breakwater, wharf			200 00		200 00
Mabou Harbour, breakwater	2,922 45		399 94		3,322 39
Mahone Bay	335 35				335 35
Maitland Ferry landing		1,399 42			1,399 42
Maitland wharf			491 42		491 42
Malignant Cove, breakwater		4,789 86			1,789 86
Marble Mountain, wharf			231 70		231 70
Margaree Island, wharf			380 32		380 32
Margaretville, breakwater			399 99		399 99
Marion Bridge, wharf		1,213 95			1,213 95
Matthew's Lake (East Ragged Island), protection channel		1,882 92			1,882 92
Melford, wharf		1,824 00			1,821 00
Meteghan, breakwater			2,000 00		2,000 00
Meteghan River—wharf			997 41		997 41
Middle Country Harbour, warehouse			21 00		21 00
Middle River, shear dams			2,846 84		2,846 84
Mill Cove, breakwater	10,260 39	253 02			10,513 41
Mill Creek, breakwater and wharf		5,259 72			5,259 72
Mira Ferry, wharf		476 22			476 22
Mochelle wharf		530 70			530 70
Moose, harbour	2,999 50				2,999 50
Morden, breakwater			999 27		999 27
Mushaboom, wharf		1,085 42			1,085 42
Musquodoboit Harbour, wharf		459 51			459 51
Necum Teuch, wharf			198 61		198 61
New Campbellton wharf (Victoria county)			102 40		102 40
Newellton, wharf (shed)		135 50			135 50
Noel, breakwater wharf			2,500 02		2,500 02
North Bay (Ingonish) breakwater			699 42		699 42
North East Margaree, shear dams		1,499 94			1,499 94
North Sydney, harbour	10,400 29				10,400 29
North West Cove (see Tancook Is.)					
Nyanza, wharf			364 40		364 40
Ogden's Pond, removal of boulders		711 80			711 80
Ogilvie's, wharf		6,630 64			6,630 64
Osburn's, breakwater		2,474 01			2,474 01
Ostrea Lake, wharf			58 57		58 57
Parker's Cove, breakwater			544 49		544 49
Petite Riviere, breakwater			2,499 98		2,499 98
Petit dé Grat	5,463 14				5,463 14
Pictou Island, wharf			701 87		701 87
Piper's Cove, breakwater-pier		2,046 81			2,046 81
Pleasant Bay, wharf		250 00			250 00
Port Beckerton, wharf			489 98		489 98
Port Clyde, wharf		3,699 78			3,699 78
Port Dufferin Harbour, wharf on west side of harbour		4,120 63			4,120 63

PART II—STATEMENT A—EXPENDITURE—*Continued.*

Name of Work.	Dredging.	Construction and Improvements.	Repairs.	Staff and Maintenance.	Total.
HARBOURS AND RIVERS.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Nova Scotia—Continued.					
Porter's Lake, boat channel to Three Fathom Harbour		290 11			290 11
Port Greville, wharf		1,236 56			1,236 56
Port Hawkesbury, wharf			2,797 31		2,797 31
Port Hebert, piei			292 64		292 64
Port Hood, wharf			4,984 74		4,984 74
Port Joli, breakwater		12 50	418 90		431 40
Port Maitland, breakwater			62 67		62 67
Port Mouton, wharf			1,202 99		1,202 99
Port Mulgrave	11,910 60				11,910 60
Portuguese Cove, wharf			151 03		151 03
Red Island, breakwater			207 70		207 70
River Bourgeois	4,240 39				4,240 39
Round Bay	1,348 40				1,348 40
Round Hill, wharf		61 55			61 55
St. Ann's (North Gut), wharf			149 48		149 48
St. Ann's (South Gut), wharf			561 59		561 59
St. Joseph, breakwater			1,293 02		1,293 02
Sambro, wharf		162 33			162 33
Sanford, wharf			197 41		197 41
Saulnierville, breakwater		1,972 67			1,972 67
Scott's Bay, breakwater			1,200 10		1,200 10
Seaforth, breakwater		11,962 03			11,962 03
Seal Island, wharf		965 23			965 23
Seaside, wharf			2,121 61		2,121 61
Shag Harbour	4,495 50				4,495 50
Sheet Harbour Passage, wharf		200 16			200 16
Sheet Harbour West, wharf			998 41		998 41
Shelburne, wharf		775 26			775 26
Skinner's Cove, boat-harbour		913 45			913 45
Sober Island, wharf		259 51			259 51
South Ingonish, wharf extension		4,358 22			4,358 22
South Lake (Lakevale), extension of channel piers		1,673 88			1,673 88
South West Cove (Lunenburg), bridge		506 69			506 69
Spanish Ship Bay, wharf		300 02			300 02
Spindler's Cove (see Feltzen South)					
Spry Bay, wharf		2,848 94			2,848 94
Sterling Brook, wharf		311 37			311 37
Stoney Island, breakwater and protection work		251 22			251 22
Summerville, breakwater		1,660 35			1,660 35
Swim's Point	2,575 20				2,575 20
Sydney Harbour, Whitney pier		1,157 28			1,157 28
Sydney Mines, wharf at Barrington's Cove		7,006 65	799 95		7,806 60
Tancook Island, breakwater at North West Cove		276 45			276 45
Tangier, wharf extension		1,221 81			1,221 81
Tanner's Pass	53 90				53 90
Tatamagouche wharf			250 55		250 55
Terrance Bay wharf		4,321 52			4,321 52
The Squam (La Have Island), removal of boulders		499 47			499 47
The Thrum (Upper Port Latour), beach protection		1,395 77			1,395 77
The Wharves (Lunenburg Co.), breakwater		1,499 76			1,499 76
Tiverton, removal of boulders		39 80			39 80
Tracadie Harbour		2 59			2 59
Trenton (Pictou County)	47,872 08				47,872 08
Trout Cove (*See* Centreville)					
Upper Prospect Wharf			168 89		168 89

SESSIONAL PAPER No. 19

PART II—STATEMENT A—EXPENDITURE—*Continued.*

Name of Work.	Dredging.	Construction and Improvements.	Repairs.	Staff and Maintenance.	Total.
HARBOURS AND RIVERS.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Nova Scotia—Continued.					
Victoria Bridge—Wharf		881 95			881 95
Vogler's Cove—Breakwater and landing skids		250 00			250 00
Walton Breakwater			1,005 30		1,005 30
Walton wharf		6,269 05			6,269 05
Washabuck Centre wharf			99 68		99 68
West Baccaro—Breakwater extension		1,252 88			1,252 88
West Berlin Beach protection			399 93		399 93
West Chezzetcook Breakwater			999 85		999 85
West Dover Breakwater		2,498 26			2,498 26
Western Shore Wharf		3,069 15	27 94		3,097 09
West Head (Cape Sable Island) Breakwater		1,872 50			1,872 50
West Pubnico Wharf		1,424 16			1,424 16
Westport Wharf		188 28			188 28
Weymouth Harbour	27,000 00				27,000 00
White Cove Breakwater	243 78	3,934 65			4,178 43
White Point Breakwater		3,853 31			3,853 31
Whitewaters Wharf			149 00		149 00
Whycocomagh wharf	6,895 36		522 50		7,417 86
Windsor Harbour improvements	2,600 00	7,623 47			10,223 47
Wolfville Wharf and Harbour Improvements		3,200 00			3,200 00
Woods' Harbour	3,993 30				3,993 30
Yarmouth Harbour		430 27			430 27
Young's Cove	538 19				538 19
Generally	6,393 44			13,160 01	19,553 45
Totals, Nova Scotia	356,785 75	504,036 92	71,552 96	13,160 01	945,535 64
PRINCE EDWARD ISLAND.					
Annandale wharf			284 72		284 72
Belfast Pier			341 62		341 62
Belle River Beach Protection Work		3,599 95			3,599 95
Bonshaw (*See* West River)					
Cardigan Ferry wharf	4,235 43	2,352 63			6,588 06
Charlottetown Harbour	16,916 29	2,076 80			18,993 09
Franklyn Point (North River)		9,993 98			9,993 98
French River Wharf		2,809 77			2,809 77
Georgetown Wharf			898 37		898 37
Grand River	2,891 74				2,891 74
Grand River (South) Wharf		2,729 00			2,729 00
Lewis Point Pier			158 22		158 22
Little Sands Breakwater		457 57			457 57
McAulay's Shore (*See* Pinette Bay)					
Malpèque	786 08				786 08
Montague (warehouse)	17,062 54	552 95			17,615 49
Mount Stewart	3,130 04				3,130 04
Murray Harbour (South River), wharf	5,213 18		335 78		5,548 96
Naufrage Pond, breakwater and approach		1,334 97			1,334 97
New London harbour works			1,383 58		1,383 58
Newport see North Cardigan)					
North Cardigan (Newport pier)			98 64		98 64
North Lake, boat harbour		18 70			18 70
North River Bridge, pier		32 80			32 80
North River (see Franklyn Point)					
Pinette Bay (McAulay's Shore), wharf	2,767 92	99 53	400 85		3,268 30
Port Selkirk, wharf—reconstruction		700 89			700 89
Robinson's Island, breakwater			765 67		765 67
Rocky Point, wharf		454 16			454 16

PART II—STATEMENT A—EXPENDITURE—*Continued.*

Name of Work.	Dredging.	Construction and Improvements.	Repairs.	Staff and Maintenance.	Total.
HARBOURS AND RIVERS.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Prince Edward Island—Continued.					
Rustico Harbour, breakwater			487 00		487 00
St. Peter's Bay, breakwaker			1,163 85		1,163 85
" (head), wharf reconstruction		4,193 00			4,193 00
Souris harbour, breakwater		39,683 74	1,389 16		41,072 90
Summerside harbour	211 62	73 12			284 74
Tignish, breakwater	12,312 40		3,960 70		16,273 10
Tracadie, breakwater		1,692 09			1,692 09
Vernon River	24,048 09				24,048 09
West River, pier at Bonshaw	242 32				242 32
" wharf at McEachern's		2,168 55			2,168 55
Wood Island breakwater—extension		67 29			67 29
Generally	3,196 72			7,038 01	10,234 73
Totals, Prince Edward Island	93,014 37	75,091 49	11,668 16	7,038 01	186,812 03
New Brunswick.					
Albert, wharf		16,090 67			16,090 67
Anderson's Hollow wharf			430 19		430 19
Bass River, wharf		1,436 11			1,436 11
Bathurst, harbour improvements	100,111 78		419 83		100,531 61
Bear Trap Cove	499 97				499 97
Big Aldouane (St. Charles)	1,094 25				1,094 25
Black River	2,222 59				2,222 59
" wharf			585 06		585 06
Boar's Head (see River Mills)					
Buctouche Beach	11,424 09				11,424 09
" breakwater		3,930 27			3,930 27
Campbellton, deep-water wharf	23,682 19	1,399 58			25,081 77
" ferry wharf			122 27		122 27
Cape Bald, breakwater			1,583 44		1,583 44
Cape Tormentine, breakwater			820 12		820 12
Caraquet, deep-water wharf			953 02		953 02
Chance Harbour, wharf		547 91			547 91
Chatham, wharf	6,432 45	7,142 55			13,575 00
Chockfish, breakwater			150 04		150 04
Chocolate Cove (Deer Island), wharf		188 38			188 38
Cocagne, wharf		134 38			134 38
Cole's Point, wharf			437 20		437 20
Dalhousie, breakwater		2,413 46			2,413 46
" harbour	8,496 42				8,496 42
Dipper Harbour, breakwater		771 14			771 14
Dorchester, wharf		514 36			514 36
Durham Wharf (River St. John)	3,196 17	40 00			3,236 17
Edgett's Landing, wharf		966 07			966 07
Evandale	2,878 26				2,878 26
Fairhaven, pier head		2,225 00			2,225 00
Fredericton	15,217 91				15,217 91
Gerow's wharf (River St John)	351 90				351 90
Gooseberry Cove, wharf		3,326 23			3,326 23
Goose Creek Harbour, breakwater		3,269 82			3,269 82
Grande Anse, new groyne		4,014 44			4,014 44
Grand Dune Flats (see Miramichi Bay).					
Grandigne, wharf		1,045 75			1,045 75
Green Point, breakwater		44 90			44 90
Gunter's wharf	687 99				687 99
Hatfield's Point (King's Co.)	5,079 25				5,079 25
Hopewell Cape, wharf		1,825 57			1,825 57
Hopewell Hill, wharf		1,399 49			1,399 49
Kouchibouguac, harbour works		3,499 52			3,499 52
Leonardville, wharf		942 91			942 91

SESSIONAL PAPER No. 19

PART II—STATEMENT A—EXPENDITURE—*Continued.*

Name of Work.	Dredging.	Construction and Improvements.	Repairs.	Staff and Maintenance.	Total.
HARBOURS AND RIVERS.	cts	$ cts.	$ cts	$ cts.	$ cts.
New Brunswick—Continued.					
L'Etang, wharf	1,873 14		1,220 78		3,093 92
Little Aldouane	30 35				30 35
Little Black River	7,272 23				7,272 23
Little Dipper Harbour, breakwater		208 30			208 30
Little Gully, breakwater		647 90			647 90
Loggieville, wharf	1,277 30				1,277 30
Lord's Cove, wharf			1,368 25		1,368 25
Lorneville, breakwater-wharf		35,610 52			35,610 52
McAlpine's wharf (River St. John)	346 98				346 98
Mace's bay, wharf		51 75			51 75
Maquapit Lake	396 00				396 00
Marble Cove (St. John)	3,995 60				3,995 60
Mill's Point, wharf			5 50		5 50
Miramichi Bay (Grande Dune Flat)	23,724 93				23,724 93
Miramichi, river	4,487 44				4,487 44
Miscou, wharf		890 03			890 03
Mispec, breakwater			523 45		523 45
Nashwaak River	229 19				229 19
Neguac, wharf		1,238 30			1,238 30
Newcastle, new wharf	3,028 45	358 06			3,386 51
New Mills, wharf			100 00		100 00
North Head, breakwater-wharf		31,641 91			31,641 91
Oak Point	2,297 79				2,297 79
Oromocto Shoals	11,969 36				11,969 36
Perry Point	3,297 67				3,297 67
Petite Lameque, wharf		22,947 50			22,947 50
Pointe du Chêne, retaining wall		980 45			980 45
Pointe Sapin, breakwater		13 00			13 00
Portage River, breakwater, &c		1,968 35			1,968 35
Public Landing Wharf (King's Co.)	416 92				416 92
Quaco, breakwater			622 75		622 75
" reconstruction of dam		2,333 32			2,333 32
" wharf		13,588 42			13,588 42
Reed's Point	914 44				914 44
Rexton, close piling		5,180 21			5,180 21
Richibucto Beach, extension of breakwater		5,724 26			5,724 26
Richibucto Cape, breakwater		11,502 10			11,502 10
" harbour entrance	13,084 38				13,084 38
" wharf	2,278 94	1,498 54			3,777 48
River Mills (Boar's Head)	1,684 40				1,684 40
River St. Croix	1,746 61				1,746 61
River St. John and tributaries:—					
Baker Lake $ 401 30					
Grand River 401 46					
Green River 395 80					
Iroquois River 402 37					
Lakeview, wharf 24 44					
Main River 559 30					
Quisibis River 190 94					
St. Francis River 298 75					
Seigas River 149 90					
Tobique River 1,975 82					
Trout River 394 33					
White's Bluff 2 17					
Generally 1,081 44					
	2,049 82	6,277 96			8,327 78
River St. John, wharfs in tidal waters—					
Brundage's Point $ 3,917 84					
Evandale 4,314 81					
Fredericton 6,911 00					
Gibson 522 00					
Huestis Landing 76 65					

PART II—STATEMENT A—EXPENDITURE—*Continued.*

Name of Work.	Dredging.	Construction and Improvements.	Repairs.	Staff and Maintenance.	Total.
HARBOURS AND RIVERS.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
New Brunswick—Continued.					
River St. John, wharfs in tidal waters—*Con.*					
Lakeview	$ 51 31				
River Mills	155 58				
Upper Maugerville	1,418 95				
White's Bluff	2,035 01				
Generally	179 37				
		19,582,52			19,582 52
St. Andrew's wharf	9,237 52		335 53		9,573 05
St. Charles (see Big Aldouane)					
St. George	20,703 30				20,703 30
St. John Harbour—					
Beacon Bar	1,202,203 32				1,202,203 32
C. P. R., wharf		15,592 55			15,592 55
Channel	75,493 28				75,493 28
Courtenay Bay	176,673 10	512,326 40			688,999 50
Foul Ground	19,715 11				19,715 11
Hillyard's, wharf	246 62				246 62
I. C. R., wharf	4,775 44				4,775 44
Navy Island Bar—Nelson Slip	12,447 02				12,447 02
Negro Point, breakwater extension		12,855 22			12,855 22
Partridge Is., Quarantine station	5,193 93		345 66		5,539 59
Port Dufferin		4,573 22			4,573 22
Thorne's Slip	411 84				411 84
St. John West, deep water wharfs, &c		401,913 06			401,913 06
" " filling at elevator		149,281 33			149,281 33
" " piers		32,038 27			32,038 27
" " shipping galleries		135,808 98			135,808 98
St. Louis, training walls	937 37	1,008 27			1,945 64
St. Martin, wharf	74 20				74 20
St. Mary's, wharf		1,106 97			1,106 97
St. Stephen	9,876 38				9,876 38
Sackville, wharf		5,130 66			5,130 66
Seal Cove, breakwater			195 82		195 82
" (Grand Manan,) breakwater pier		181 00			181 00
Shampers (River St. John)	562 23				562 23
Shediac Island, wharf	6 83	3,348 64			3,355 47
Shippigan Ferry Landing		1,729 07			1,729 07
" Gully	9,271 90	3,011 22			12,283 12
Spinney's Point, wharf		1,939 41			1,939 41
Stonehaven, breakwater			1,947 99		1,947 99
" wharf		1,218 73			1,218 73
Thomas Creek, protection work		1,491 85			1,491 85
Trynor's Cove, wharf		358 20			358 20
Upper Derby wharf		2,346 60			2,346 60
Upper Salmon River pier		132 54			132 54
Welsh's Cove (Mace's Bay) breakwater		109 60			109 60
Welsh Pool (Grand Manan) wharf		154 31			154 31
Whitehead wharf	697 77				697 77
Wilson's Beach (Grand Manan) wharf			89 92		89 92
Woodbury's Cove wharf		1,364 62			1,364 62
Woodward's Cove breakwater		673 38			673 38
Generally	6,393 44			16,673 71	23,067 15
Totals, New Brunswick	1,822,697 76	1,509,106 01	12,256 82	16,673 71	3,360,734 30
Quebec.					
Abenaquis Springs (Co. Yamaska)	998 87				998 87
Amherst wharf, Magdalen Islands	9,095 43	8,141 49			17,236 92
Angers (L'Ange Gardien) wharf		1,471 76			1,471 76
Anse à Beaufils harbour improvements		4,505 34			4,505 34

PART II—STATEMENT A—EXPENDITURE—*Continued.*

Name of Work.	Dredging.	Construction and Improvements.	Repairs	Staff and Maintenance.	Total.
HARBOURS AND RIVERS.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Quebec—Continued.					
Anse à Blondel breakwater		39 01			39 01
Anse à Gilles wharf			1,195 73		1,195 73
Anse à la Grosse Roche (Saguenay) wharf extension		3,274 79			3,274 79
Anse à l'Eau (see Tadousac)—					
Anse à l'Islot—wharf			170 75		170 75
Anse à Simon wharf		4,996 88			4,996 88
Anse aux Gascons wharf extension, etc.		2,998 70			2,998 70
Anse aux Griffonds training pier			673 91		673 91
Anse St. Jean wharf			1,198 19		1,198 19
Aylmer (Lake Deschenes) wharf	3,311 18		3 76		3,314 94
Baie des Rochers—removal of boulders		349 75			349 75
Baie St. Paul (Cap aux Corbaux) wharf	1,335 00		5,674 12		7,009 12
" " proposed wharf		160 53			160 53
Barachois de Malbaie, pier			181 51		181 51
Batiscan, wharf		5,401 44			5,401 44
Beauport, wharf			135 30		135 30
Beaurivage,			141 45		141 45
Bécancourt, wharf			426 44		426 44
Beloeil, guide piers			610 94	183 63	794 57
Beloeil Village wharf		5,840 38			5,840 38
Bergeronnes Wharf—shed, etc		622 40			622 40
Berthier-en-bas, wharf	1,384 00		1,198 93		2,582 93
Berthier-en-haut (d'Antray)	370 00				370 00
Berthierville Wharf		10,005 46			10,005 46
Bic Harbour (Isle au Massacre)			162 68		162 68
Bic, wharf at Pointe à Coté			78 64		78 64
Brèche à Manon—removal of boulders		40 00			40 00
Bryant's Landing, regrading of approach		450 38			450 38
Buckingham (Rivière du Lièvre)	1,121 35				1,121 35
Cabano wharf extension		2,994 56			2,994 56
Cacouna wharf extension and repairs		2,938 79	1,200 19		4,138 98
Cannes de Roches, breakwater		691 82			691 82
Canton Fabre (see Fabre)—					
Cap à la Baleine—removal of boulders		99 25			99 25
Cap à l'Aigle wharf		5,077 38			5,077 38
Cap Chatte—extension of training pier		1,085 05			1,085 05
Cape Cove—extension of landing pier		19,040 32			19,040 32
Cap de la Madeleine wharf enlargement	166 67	30,113 13			30,279 80
Cap Rosier breakwater		46 65			46 65
Cap St. Ignace wharf			107 66		107 66
Cap Santé wharf			179 51		179 51
Chambly	950 02				950 02
Chambord wharf			150 13		150 13
Champlain wharf			240 60		240 60
Chicoutimi Basin wharf		6,093 57			6,093 57
Chicoutimi-Piling at wharf		3,908 60			3,908 60
" wharf extension		10,479 47			10,479 47
" wharf extension-claim of T. Desbiens		5,810 41			5,810 41
" wharf improvements and repairs	231 47	3,337 27	3,610 06		7,178 80
Clarks City (Seven Islands) wharf		12,480 81			12,480 81
Contrecœur wharf			1,345 70		1,345 70
Coteau Landing wharf		3,915 46			3,915 46
Cote Ste Catherine wharf			125 30		125 30
Cross Point wharf enlargement		2,195 12			2,195 12
Deschambault wharf			168 16		168 16
Dorion	1,711 20				1,711 20
Doucet's Landing	5,230 30				5,230 30
Douglastown, extension of breakwater		2,673 41			2,673 41
East Templeton wharf			308 77		308 77
Escoumains, removal of boulders		594 64			594 64

PART II—STATEMENT A—EXPENDITURE—*Continued.*

Name of Work.	Dredging.	Construction and Improvements.	Repairs.	Staff and Maintenance.	Total.
HARBOURS AND RIVERS.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Quebec—Continued.					
Fabre, wharf extension, etc		2,403 78			2,403 78
Fassett ice breaker (Ottawa R.)		606 99	4 00		610 99
Father Point wharf			3,598 81		3,598 81
Fort Coulonge wharf		2,543 09			2,543 09
Fraserville (see R. du Loup en bas)					
Gaspé, deep-water wharf		61,454 99			61,454 99
Gatineau Point wharf			67 50		67 50
Georgeville wharf			514 62		514 62
Graham wharf			1,615 67		1,615 67
Grande Entrée breakwater (Magdalen Islands)		311 68			311 68
Grande Grève, removal of boulders		99 00			99 00
Grand Marsh (see St. Clothilde)					
Grand Méchins wharf extension		337 00	100 03		437 03
Grand Metis (see Ste Felicité)					
Grande Rivière de Gaspé, wharf			3,250 19		3,250 19
Grondines wharf			581 96		581 96
Grosse Isle Quarantine Station wharf, etc.		42,168 27			42,168 27
Grosse Roche (see Anse à la Grosse Roche)					
Harrington Harbour wharf and extension		942 52			942 52
Hospital Bay (Magdalen Island) breakwater		38 93			38 93
Hudson wharf	437 09				437 09
Hull wharf			83 25	182 50	265 75
Iberville	1,506 24				1,506 24
Ile aux Castors	655 00				655 00
Ile aux Coudres, extention to wharf		754 95			754 95
Ile aux Foins	5,803 34				5,803 34
Ile aux Grues wharf (North Side)			2,500 18		2,500 18
Ile aux Grues wharf (South Side)			1,444 77		1,444 77
Ile Cadieux	184 80				184 80
Ile du Pads	345 60				345 60
Ile Verte, dredging near wharf	1 395 74				1,395 74
Ile Verte, extension to main wharf		4,500 59			4,500 59
Ile Verte, wharf at Auguste Michaud		800 33			800 33
Jones Bridge (river Richelieu)			185 42		185 42
Kamouraska, addition to wharf		200 00	97 40		297 40
Knowlton Landing wharf, reconstruction		245 45			245 45
Lac aux Ecorces, improvements		623 91			623 91
Lac des Iles, wharfs		636 92			636 92
Lac Labelle, wharf			250 00		250 00
Lac Timiscaming, wharf at North Guigues		4,018 50			4,018 50
Lachine (Canal)	476 19				476 19
Lachine, wharf		14,053 25			14,053 25
Lake Aylmer (*See* Stratford Centre)					
Lake St. John, survey re proposed dam at Grande Decharge		1,519 01			1,519 01
La Lancette, wharf		2,004 18			2,004 18
Lanoraie wharf, extension		5,352 00			5,352 00
Laprairie, protection works		3,876 97	32 25		3,909 22
Lauzon, dry dock (*See* Levis).					
Lavaltrie, wharf			45 50		45 50
Les Eboulements, wharf			70 77		70 77
Les Ecureuils, wharf			290 59		290 59
Levis, deep water wharf, etc		5,997 83			5,997 83
" Graving Dock (Lorne Dock)				16,907 29	16,907 29
" Lauzon Graving Dock (new)		5,196 12			5,196 12
L'Islet, wharf			17,957 38		17,957 38
Little Metis, wharf		198 25			198 25
Long Rapids (River du Lievre)	1,247 44				1,247 44

PART II—STATEMENT A—EXPENDITURE—*Continued.*

Name of Work.	Dredging.	Construction and Improvements.	Repairs.	Staff and Maintenance.	Total.
HARBOURS AND RIVERS	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Quebec.—(Continued).					
Longueuil, wharf	14,128 55		342 00		14,470 55
Lotbinière, wharf			49 04		49 04
Loniseville (*See* River du Loup en haut).					
Magdalen Island, channel	12,389 08				12,389 08
Magog, wharf			912 34		912 34
Malbaie, pier		4,924 06			4,924 06
Manche d'Epée, removal of boulders		50 00			50 00
Maria, wharf			799 94		799 94
Masson, wharf			14 32		14 32
Matane, breakwater east side		1,377 40			1,377 40
" wharf		4,000 03			4,000 03
Megantic, reconstruction of wharf		1,400 59			1,400 59
Mille Vaches, wharf extension		1,999 56			1,999 56
Mistassini (*See* river Mistassini).					
Mont Louis, wharf			1,119 28		1,119 28
Montmagny, extension and repairs to wharf		1,991 39	4,540 50		6,531 89
Montmagny, protection wall north east side of basin		4,499 79			4,499 79
Murray Bay, wharf	3,259 18	44,094 91			47,354 09
Natashquan Pier, freight shed		699 46			699 46
New Carlisle, wharf			500 00		500 00
New Richmond, wharf			1,455 48		1,455 48
Nicolet, construction of jetty on east side		5,254 25			5,254 25
Nicolet, wharf		643 90	1,494 87		2,138 77
North Guigues (*See* Lake Timiscaming).					
North Timiscaming, wharf		8 80			8 80
Norway Bay, ice breaker (Ottawa R.)		579 11			579 11
Notre Dame de Pierreville	3,002 96				3,002 96
Papineauville	652 07	619 20			1,271 27
Peel Head Bay, wharf			521 20		521 20
Percé wharf		1,315 94			1,315 94
" (White Head) removal of boulders		100 63			100 63
Peribonka (*See* River Peribonka)					
Petite Descharge, removal of boulders		2,996 64			2,996 64
Petite Rivière Est., breakwater		302 64			302 64
" " Saguenay wharf			227 69		227 69
Piché Point (*See* Pointe Piché)					
Pierreville Mills	1,304 66				1,304 66
" wharf			1,705 16		1,705 16
Pointe à Elie Breakwater (Magdalen Islands)		5,025 89			5,025 89
Pointe à la Loupe (See St. Eloi)					
Pointe aux Esquimaux, wharf			1,661 81		1,661 81
Pointe Claire, wharf			150 00		150 00
Pointe Fortune, wharf			996 94		996 94
Pointe Jaune, removal of rocks		50 00			50 00
Pointe Piché, wharf (Timiscaming)		4,069 07			4,069 07
Port Daniel, wharf			1,486 30		1,486 30
Portneuf (Saguenay) wharf			1,499 76		1,499 76
Poupore (Riv. du Lièvre) training pier	2,389 41	5,483 53			7,872 91
Quebec Harbour, improvements to navigation	6,269 79	220,354 16			226,623 95
Quyon wharf		1,158 46			1,158 46
Rigaud wharf			233 40		233 40
Rimouski, harbour improvements	5,832 14	9,780 02	704 65	806 54	17,123 35
Rivière Ashouapmonchouan, dykes			500 85		500 85
Rivère aux Renard's wharf			351 02		351 02
Rivière aux Vases (Co. Saguenay) addition to wharf		2,149 41			2,149 41
Rivière Batiscan, landing piers	168 00	19,940 80			20,108 80
Rivière Blanche wharf (Co. Rimouski)	1,359 52		2,996 69		4,356 21
Rivière Bois Blanc	1,445 59				1,445 59

PART II—STATEMENT A—EXPENDITURE—*Continued.*

Name of Work.	Dredging.	Construction and Improvements.	Repairs.	Staff and Maintenance.	Total.
HARBOURS AND RIVERS.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Quebec—Continued.					
Riviere Bonaventure, training pier		1,263 36			1,263 36
Rivière Caplan, to complete pier		502 04			502 04
Rivière Chicot at St. Cuthbert, ice breakers		1,068 35			1,068 35
Rivière Chateauguay, dams		5,356 45			5,356 45
Rivière des Vases, landing pier extension		1,588 49			1,588 49
Rivière du Lievre, lock			124 44	3,937 88	4,362 32
Rivière du Lievre, wharfs—					
Brewer's wharf $ 5 00					
Buckingham 83 68					
Glen Almond 28 63					
High Falls 116 88					
Poltimore 36 40					
Poupore 391 70					
		662 29			662 29
Rivière du Loup (en haut) lock and dam (Louiseville)	12,032 77	14 43			12,047 20
Rivière du Loup, wharf improvements and repairs (Frazerville)		874 43	2,171 03		3,045 46
Rivière du Moulin, protection works		4,049 54			4,049 54
Rivière du Sud, protection works		176 31			176 31
Rivière Gatineau, protection of bank		3,082 15			3,082 15
Rivière Godefroy wharf (Nicolet Co.)			405 67		405 67
Rivière Laguerre, improvements		295 00			295 00
Rivière la Pipe, wharf		637 92			637 92
Rivière Maskinongé, Ice Breakers at St. Charles and St. Gabriel de Brandon		1,256 94			1,256 94
Rivière Mistassini, training dykes		1,389 08	99 35		1,488 43
Rivière Nicolet	22 00				22 00
Rivière Nouvelle, protection works		816 38			816 38
Rivière Ouareau, ice breaker			505 64		505 64
Rivière Ouelle, wharf			3,698 51		3,698 51
Rivière Peribonka, training dykes		678 73			678 73
Rivière Saguenay	21,230 22				21,230 22
Rivière St. Francois, protection piers, etc.	28,240 58		659 31		28,899 89
River St. Lawrence, protection wall at Laprairie		409 21			409 21
Rivière St. Louis at St. Paulin	2,421 20				2,421 20
Rivière St. Maurice, eastern channel	24,113 16				24,113 16
Rivière St. Maurice, Grande Piles to La Tuque	2,089 79				2,089 79
Rivière St. Maurice, Mission Rapids	687 19				687 19
Rivière Verte East, improvements	1,499 60				1,499 60
" West, wharf extension		1,499 45			1,499 45
Rivière Valin, Wharf (Saguenay)		1,194 78			1,194 78
Roberval (Lake St. John), completion of breakwater		4,003 98			4,003 98
Roberval (Lake St. John) wharf	3,792 82		2,950 90		6,743 72
Ruisseau à Loutre, wharf extension		4,288 33			4,288 33
Ruisseau LeBlanc—shear dam		4,985 99			4,985 99
Ste. Adelaide de Pabos, breakwater extension		6,997 80			6,997 80
St. Andrews East	1,411 47				1,411 47
St. Angele de Laval, wharf			10 00		10 00
Ste. Anne de Bellevue	750 00				750 00
Ste. Anne de Chicoutimi, wharf		7,565 09			7,565 09
Ste. Anne des Monts, harbour improvements at mouth of Grande Rivière Ste. Anne		1,108 65			1,108 65
Ste. Anne des Monts, wharf extension		3,205 85			3,205 85
St. Antoine de Richilieau, wharf	1,353 61	8,595 50			9,949 11
St. Antoine Station, wharf		4,658 88			4,658 88

PART II—STATEMENT A—EXPENDITURE—*Continued.*

Name of Work.	Dredging.	Construction and Improvements.	Repairs.	Staff and Maintenance.	Total.
HARBOURS AND RIVERS.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Quebec—Continued.					
St. Charles de Chicoutimi, wharf			293 81		293 81
St. Charles de Richelieu, wharf			282 32		282 32
Ste. Clothilde de Chateauguay (Grand Marsh)		4,491 78			4,491 78
Ste. Croix, wharf extension, etc.		2,135 64			2,135 64
St. Cuthbert (*See* Riv. Chicot).					
St. Denis Wharf (Riv. Richelieu)		3,486 18	104 25		3,590 43
St. Eloi (Pte. a la Loupe) landing pier		995 53			995 53
Ste. Emelie (Leclercville) wharf		1,001 37	1,948 19		2,949 56
Ste. Famille d'Orléans, wharf extension		2,697 60			2,697 60
Ste. Famille d'Orléans, wharf (old)			7,867 99		7,867 99
St. Felicien, Ashuapmouchouan Riv., wharf	1,062 81		789 66		1,852 47
Ste. Felicité Wharf (Grand Metis)		13,219 75			13,219 75
St. Francois d'Orléans (south) wharf			263 95		263 95
St. Francois du Lac. wharf			110 00		110 00
St. Fulgence, wharf	1,515 48		1,206 44		2,721 92
St. Gédéon, removal of rocks		813 43			813 43
Ste. Geneviève de Batiscan, wharf		8,571 11			8,571 11
St. Georges de Malbaie, breakwater		3,899 80			3,899 80
St. Germain de Kamouraska, wharf		43 50			43 50
St. Gregoire de Montmorency, wharf		4,998 37			4,998 37
Ste. Irénée-les-Bains, wharf			3,809 75		3,809 75
St. Jacques des Piles	202 00				202 00
St. Jean des Chaillons, wharf		3,179 98			3,179 98
St. Jean des Piles	828 70				828 70
St. Jean d'Orléans, wharf extension and repairs		1,509 90	5,790 94		7,300 84
St. Jean Port Joli, wharf		4,737 50			4 737 50
St. Jerome, wharf addition		5,491 69			5,491 69
St. Joseph de Letellier, wharf		1,870 50			1,870 50
St. Joseph de Sorel, wharf (shed)		546 08			546 08
St. Lambert dykes, etc	341 06		877 12		1,218 18
St. Laurent d'Orléans, wharf			1,023 44	596 88	1,620 32
St. Louis de Gonzague	9,091 63				9,091 63
St. Majorique, wharf approach		7,334 14			7,334 14
St. Marc, repairs to wharf and ice-breaker			206 06		206 06
St. Mathias, wharf			434 18		434 18
St. Mathieu (Co. Rimouski)	1,681 16				1,681 16
St. Michel de Bellechasse, wharf			2,499 68		2,499 68
St. Nicholas, wharf			13 06		13 06
St. Omer, wharf			136 53		136 53
St. Ours (Richelieu), wharf (shed)		2,532 62			2,532 62
St. Pierre les Becquets, wharf	2,493 19		927 32		3,420 51
St. Roch des Aulnaies, wharf			1,494 68		1,494 68
" de Mekinac	1,210 90				1,210 90
" de Richelieu	988 87				988 87
St. Romuald, removal of boulders		1,498 95			1,498 95
St. Siméon (River St. Mathieu)	3,167 99		456 75		3,624 74
St. Timothée, wharf			50 00		50 00
St. Valier, extension and repairs to wharf		196 76	2,192 48		2,389 24
Ste. Victoire, wharf		6,165 64			6,165 64
St. Zotique, wharf			147 25		147 25
Sault au Mouton, removal of boulders		597 75			597 75
Sault Montmorency, protection work		1,799 07			1,799 07
Sorel deep water wharf		23,355 76	5,987 74		29,343 50
Stratford Centre (Lake Aylmer), wharf			217 57		217 57
Tadousac, wharf (shed), etc		1,899 37			1,899 37
" wharf at Anse a l'Eau		3,521 43	1,746 92		5,268 35
Three Rivers, deep-water wharf	9,686 66	72,205 58			81,892 24
Thurso, wharf (Ottawa river)	314 97	2,382 17			2,697 14

PART II—STATEMENT A—EXPENDITURE—*Continued.*

Name of Work.	Dredging.	Construction and Improvements.	Repairs.	Staff and Maintenance.	Total.
HARBOURS AND RIVERS.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Quebec—Continued.					
Trois Pistoles, harbour pier (South)		4,937 93	4,992 13		9,930 06
" " ice-breaker			2,497 99		2,497 99
Valleyfield, wharf extension and shed		2,475 31			2,475 31
Varennes	86 00				86 00
Verchéres, wharf			2,091 56		2,091 56
Verdun, wharf		2,623 44			2,623 44
Victoria Bay, wharf (Compton)			306 12		306 12
Ville Marie, wharf (Timiscaming)	2,181 63	15,753 21	96 40		18,031 24
White Head (*see* Percé)					
Yamachiche Landing		77 40			77 40
Yamaska	1,004 16				1,004 16
" Lock and dam			1,846 48	1,815 30	3,661 78
Generally	127,637 54			38,961 21	166,598 75
Totals, Quebec	353,297 04	955,929 81	139,680 57	63,391 23	1,512,298 65
Ontario.					
Ancona wharf		3,241 57			3,241 57
Armitage Landing wharf		71 69			71 69
Arnprior wharf			107 47		107 47
Atherley wharf			200 00		200 00
Bare Point (Port Arthur) breakwater		180,193 00			180,193 00
Barrie wharf			98 00		98 00
Barry's Bay wharf			3,050 89		3,050 89
Bayfield piers			2,001 06		2,001 06
Beaumaris wharf		10,793 81			10,793 81
Beaverton Harbour improvements		13,482 45			13,482 45
Belle Ewart wharf		7,728 47			7,728 47
Belleville Harbour improvements	4,777 75	43,305 07			48,082 82
Big Bay wharf			3,875 60		3,875 60
Big Bay Point wharf		7,885 16			7,885 16
Black River, removal of obstructions		1,042 03			1,042 03
Blind River dock	2,966 45		484 18		3,450 63
Bobcaygeon wharf		1,441 09			1,441 09
Bowmanville piers	1,074 93		1,843 28		2,918 21
Bracebridge wharf extension		3,422 05			3,422 05
Brighton wharf extension, etc		250 41			250 41
Brockville shoals	1,524 54				1,524 54
Brockville wharf		13,035 72			13,035 72
Bronte wharf and shore protection		3,822 76			3,822 76
Bruce Mines, wharf, etc	6,153 50		596 15		6,749 65
Burk's Falls	1,622 24				1,622 24
Burleigh Falls wharf		183 11			183 11
Burlington Channel, west part of South Pier, etc			2,359 29	3,540 31	5,799 60
Burlington, revetment wall, etc		1,788 90			1,788 90
Cache Bay (Lake Nipissing), wharf	1,947 88	1,451 10			3,398 98
Cæsarea wharf		2,862 18			2,862 18
Callendar, wharf extension, etc	84 55	3,900 99			3,985 54
Campbell's Bay wharf		3,958 84			3,958 84
Clairmont Ferry (see South Nation river)					
Cloud Bay	13,664 00				13,664 00
Cobourg Harbour	7,605 72				7,605 72
" Centre pier		309 64			309 64
" East pier			3,088 72	77 00	3,165 72
" Extension of west breakwater		42,273 14			42,273 14
Colchester wharf			350 00		350 00
Colborne wharf			802 87		802 87
Collingwood Harbour	15,541 19		439 48		15,980 67
" graving dock No. 1				15,000 00	15,000 00
" graving dock No. 2				9,208 96	9,208 96
Dawson Point wharf (Lake Timiskaming), addition		1,647 17			1,647 17

PART II—STATEMENT A—EXPENDITURE—*Continued.*

Name of Work.	Dredging.	Construction and Improvements.	Repairs.	Staff and Maintenance.	Total.
HARBOURS AND RIVERS.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Ontario—Continued.					
Deseronto	16,505 18				16,505 18
Driftwood Creek improvements		1,631 22			1,631 22
Dyer's Bay wharf extension		4,885 01			4,885 01
Echo Bay	7,012 67				7,012 67
Fighting Island (Detroit river), improvements		40 00			40 00
Fitzroy Harbour wharf		160 39			160 39
Fort William Harbour improvements	933,478 45	121,242 67			1,054,721 12
French river waterway improvements	429 33	33,597 89			34,027 22
Gananoque wharf		420 78			420 78
Goderich Harbour improvements	11,419 08				11,419 08
" extension of eastern breakwater		7,320 13			7,320 13
" northwest breakwater		158,884 00			158,884 00
" southwest breakwater		15,141 56			15,141 56
" repairs to piers			3,336 21		3,336 21
" river breakwater		13,145 91			13,145 91
Griffith's Island, wharf, etc	542 78		248 24		791 02
Grand Bend, guard pier			206 80		206 80
Gravenhurst (Lake Muskoka), wharf and warehouse		1,208 33			1,208 33
Haileybury Harbour, improvements (Lake Timiscaming)	1,938 15	8,778 97		985 27	11,702 39
Hamilton Harbour, improvements	20,518 74	69,813 72		1,532 18	91,864 64
Hawkestone, wharf			86 70		86 70
Head River, improvements (Victoria Co.)		1,699 97			1,699 97
Helen's Bay, wharf		4,133 34			4,133 34
Hilton	885 41				885 41
Honey Harbour	2,868 25				2,868 25
Huntsville, wharf		1,125 76			1,125 76
Jeannette's Creek	706 00				706 00
Kawartha Park, wharf reconstruction		955 55			955 55
Kempenfeldt Bay, wharf		5,412 59			5,412 59
Kenora, wharf (See also Millar's Rapids)		8,372 10			8,372 10
Kensington, wharf		495 78			495 78
Killarney	5,704 56				5,704 56
Kincardine Harbour	4,900 17				4,900 17
" Breakwater		622 40			622 40
" Piers			6,424 94		6,424 94
Kingston Harbour, improvements		55,691 91			55,691 91
Kingsville Harbour	5,557 66				5,557 66
" Piers			2,276 74		2,276 74
Lake Nipissing, French River, regulating works at outlet (See French River)					
Lake Nipissing, Shanty Lake, Monetville		1,416 19			1,416 19
Lakeport, reconstruction of wharf		146 99			146 99
Lake Timiscaming, township of Lorraine (See Loraine).					
Lansdowne, wharf extension		4,268 03			4,268 03
La Passe Ferry, wharf		526 75			526 75
Leamington, wharf			1,403 47		1,403 47
Lion's Head, wharf		4,420 00			4,420 00
Little Castor River, to recoup municipality of township of Winchester, re drainage done in 1912-13		5,110 86			5,110 86
Little Current	58,333 56				58,333 56
Long Lake, improvements		2,310 53			2,310 53
Long Point (See St. Williams).					
Lorraine Wharf (Lake Timiscamingue)		4,014 30			4,014 30
L'Orignal (Ottawa River), wharf		519 02			519 02
Madawaska River	3,353 95				3,353 95
Martin's Island, bank protection		978 50			978 50

PART II—STATEMENT A—EXPENDITURE—*Continued.*

Name of Work.	Dredging.	Construction and Improvements.	Repairs.	Staff and Maintenance.	Total.
HARBOURS AND RIVERS.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Ontario—Continued.					
Meaford Harbour, improvements	4,034 20	17,116 18			21,150 38
Michipicoten wharf (warehouse)		720 24			720 24
Midland Harbour, improvements	27,413 63				27,413 63
Monetteville, wharf		1,554 85			1,554 85
Montreal River (Flat Rapids)		1,793 17			1,793 17
" (Latchford Dam)		44,971 82			44,971 82
" " claim of Messrs. Lowery & Goring		25,256 66			25,256 66
Muskoka Narrows	4,473 09				4,473 09
Napanee	11,673 33				11,673 33
Nation River, improvements		15 50			15 50
Newcastle, eastern pier			288 73		288 73
New Liskeard, harbour improvements	1,072 99	18,539 18			19,612 17
North Bay, breakwater		5,364 81			5,364 81
Oliphant, pier			74 52		74 52
Orillia, wharf	1,513 57	7,638 05			9,151 62
Oshawa, harbour improvements		72 16			72 16
Ottawa, Victoria Island, shipyard	936 02				936 02
Owen Sound Harbour	1,357 63				1,357 63
" revetment wall—east side		20,688 99			20,688 99
" revetment wall—west side		20,626 75	304 94		20,931 69
Parry Sound, wharf		48,384 00			48,384 00
Pelee Island, docks			3,626 24		3,626 24
Penetanguishene	2,968 59				2,968 59
Peterboro, balance on purchase of wharf property		250 95			250 95
Peterboro, pavilion on wharf		2,682 94			2,682 94
Picnic Islands, improvements (Georgian Bay)	89,788 55				89,788 55
Picton Harbour	20,325 03				20,325 03
Pike Creek, revetment wall		759 90			759 90
Point Edward	994 70				994 70
Porcupine, wharf			1,123 67		1,123 67
Port Arthur Harbour, improvements	132,278 71	555,350 91			687,629 62
Port Bruce, extension of west pier, etc	1,858 52	6,190 10			8,048 62
Port Burwell Harbour, improvements	15,935 57	54,728 04			70,663 61
Port Colborne, eastern breakwater			201 60		201 60
Port Credit, purchase of property for harbour		30,344 20			30,344 20
Port Elgin, breakwater, etc		2,000 00			2,000 00
Port Findlay, wharf			899 93		899 93
Port Hope Harbour, improvements	2,300 00	573 07			2,873 07
" " wharf			4,000 69		4,000 69
Port McNicol (*See* Victoria Harbour).					
Port Rowan, pier		800 00			800 00
Port Stanley Harbour, improvements	16,614 18	64,112 82			80,727 00
Providence Bay, wharf extension and warehouse		12,372 13			12,372 13
Quarry Bay, wharf		4,201 52			4,201 52
Rainy River, maintenance of gauges				15,866 26	15,866 26
" mouth	17,779 28				17,779 28
" wharf		3,455 83			3,455 83
Richard's Landing, wharf and warehouse		358 35			358 35
River St. Lawrence, between Kingston and Brockville	36,254 89				36,254 89
River Thames, breaking ice-jams				2,198 25	2,198 25
" removal of obstructions	1,355 81	3,292 93			4,648 74
Robin's Landing, wharf			25 00		25 00
Rondeau Harbour, piers, etc	1,092 95		2,101 30		3,194 25
Rosseau, wharf extension		1,499 33			1,499 33
Running Creek (near Wallaceburg)	4,000 00				4,000 00
St. Joseph Island, "K" line		474 03			474 03
" " wharfs and warehouses		3,849 72	146 95		3,996 67

PART II—STATEMENT A—EXPENDITURE—*Continued.*

Name of Work.	Dredging	Construction and Improvements.	Repairs.	Staff and Maintenance.	Total.
HARBOURS AND RIVERS.	$ cts.	$ cts	$ cts.	$ cts.	$ cts.
Ontario—Continued.					
St. Mary's River	2,955 28	171 00			3,126 28
St. William's Landing, pier			100 06		100 06
Sand Point, wharf			1,716 99		1,716 99
Sarnia Bay, improvements	3,229 94				3,229 94
Sarnia Wharf and Shelter Basin		52 50			52 50
Saugeen River, landing docks			1,100 00		1,100 00
Sault Ste. Marie, harbour improvements	152,481 64	43,550 03	2,749 01		198,780 68
Sea Gull, wharf extension		196 08			196 08
Severn Bridge, wharf (shelter), etc	3,161 20	49 97			3,211 17
Severn River at Washago, dams		183 83			183 83
Silver Centre, wharf		2,574 68			2,574 68
Southampton (Chantry Island), breakwater			4,899 71		4,899 71
South Bay	1,452 59				1,452 59
South Lancaster, wharf			1,582 78		1,582 78
South Nation River at Clairmont Ferry			2 92		2 92
South Porcupine, wharf			1,250 59		1,250 59
Stokes Bay, wharf			1,336 28		1,336 28
Sturgeon Falls	1,068 89				1,068 89
Summerstown, wharf			11 50		11 50
Sydenham River at Dresden, removal of boulders		148 70			148 70
Telegraph and Nigger Islands (Bay of Quinte)	49,933 96				49,933 96
Thessalon, wharf			993 60		993 60
Thornbury, harbour improvements		3,198 46			3,198 46
Tobermory, glance booms			257 92		257 92
Toronto Harbour, improvements—					
Eastern Entrance		3,475 72			3,475 72
Eastern Pier, reconstruction		1,130 00			1,130 00
Island shore, protection		7,553 10			7,553 10
New Western entrance	22,960 56	122,373 39			145,333 95
Queen's Wharf				50 00	50 00
Sea Wall		10,640 38			10,640 38
Trent Bridge, wharf		2,355 77			2,355 77
Trenton Harbour, improvements	69,222 77				69,222 77
Two Creeks Harbour (*See* Wheatley).					
Vail's Point, wharf		210 42			210 42
Victoria Harbour (Port McNicol) wharf, etc	62,501 43	9,587 53			72,088 96
Walker River (near Sault Ste. Marie)	1,444 27				1,444 27
Wellington Wharf and Harbour improvements		692 51			692 51
Wendover, wharf		627 26			627 26
Wheatley, breakwater (two creeks)			802 52		802 52
Whitby Harbour, improvements	16,576 93	7,831 08			24,408 01
Wiarton	542 78				542 78
Windermere, wharf and warehouse		2,904 28			2,904 28
Windsor Landing, dock		52,348 33			52,348 33
Generally	76,879 95			45,298 78	122,178 73
Totals, Ontario	1,991,541 12	2,119,375 58	61,880 61	93,757 01	4,266,554 32
Manitoba.					
Assiniboine River, near Portage la Prairie		5,117 80			5,117 80
Delta, protection works		5,049 06			5,049 06
Gimli Harbour, breakwater	2,583 65	5,007 46			7,591 11
Gull Harbour, wharf extension		892 93		3,849 49	4,742 42
Hnaussa, wharf			568 79		568 79

PART II—STATEMENT A—EXPENDITURE—*Continued.*

Name of Work.	Dredging.	Construction and Improvements.	Repairs.	Staff and Maintenance.	Total.
HARBOURS AND RIVERS.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Manitoba—Continued.					
Lake Manitoba, survey re lowering of lake		3,074 35			3,074 35
Lockport	8,495 91				8,495 91
Netley Lake (North)	215 29				215 29
Pelican Lake, wharf		319 50			319 50
Red River—					
New entrance channel at mouth	11,541 78	41,477 71			53,019 49
St. Andrews Rapids, lock and dam		62,722 45		13,779 39	76,501 84
St. Andrews, fishway		6,030 10			6,030 10
Repairing banks above St. Andrews			2,962 80		2,962 80
Selkirk Harbour, improvements	10,729 17				10,729 17
Selkirk, marine railway	16,134 51	7,711 20			23,845 71
Selkirk, slough		2,342 96			2,342 96
Selkirk, wharf			533 85		533 85
Snake Island	4,780 29				4,780 29
Victoria Beach Bay, breakwater, wharf	2,311 18	3,450 67			5,761 85
Winnipeg	7,057 42				7,057 42
Winnipeg to Lockport (survey)		589 85			589 85
Winnipegosis	1,719 52				1,719 52
Generally	3,097 02			4,180 54	7,277 56
Totals, Manitoba	68,665 74	143,786 04	7,914 93	17,959 93	238,326 64
Saskatchewan and Alberta					
Athabaska River, removal of boulders		7,167 01			7,167 01
Edmonton wharf		2,463 34			2,463 34
Fort Qu'Appelle	206 88				206 88
Grouard	4,241 07				4,241 07
Last Mountain Lake (Craven dam)		5,220 43			5,220 43
North and South Saskatchewan Rivers —Surveys of rapids, etc		32,019 13			32,019 13
Prince Albert, protection works		16,015 24			16,015 24
Saskatchewan River, improvements		22,781 78			22,781 78
Sturgeon River, improvements		2,495 96			2,495 96
Valeport	5,424 87				5,424 87
Generally				1,069 97	1,069 97
Totals, Saskatchewan and Alberta	9,872 82	88,162 89		1,069 97	99,105 68
British Columbia.					
Ainsworth wharf		348 48			348 48
Alice Arm (Observatory inlet), wharf-shed		520 95			520 95
Bamfield, wharf			14 00		14 00
Barnston Island, wharf		2,499 98			2,499 98
Beaton, wharf		7,739 29			7,739 29
Belmont, wharf		2,500 00			2,500 00
Bold Point, wharf		2,479 15			2,479 15
Boswell, wharf		1,427 00	2,110 80		3,537 80
Campbell River, wharf			5,533 49		5,533 49
Camp Island, wharf			1,983 82		1,983 82
Canoe Pass (Fraser River), Protection Bank		4,340 50			4,340 50
Cascade Flume, wharf		1,313 78			1,313 78
Chilliwack, wharf			247 15		247 15
Church House, landing float		841 79			841 79
Clam Bay (Thetis Island), wharf		3,000 00			3,000 00

PART II—STATEMENT A—EXPENDITURE—*Continued.*

Name of Work.	Dredging.	Construction and Improvements.	Repairs.	Staff and Maintenance.	Total.
HARBOURS AND RIVERS	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
British Columbia—Continued.					
Columbia and Kootenay Rivers, improvements	23,077 25				23,077 25
Above Golden $5,752 02					
At Revelstoke 1,157 51					
Below Burton 1,336 21					
Below Revelstoke 4,817 45					
Generally 2,848 87					
	15,912 06				15,912 06
Columbia and Kootenay Rivers, wharfs:					
Argenta $5,368 20					
Arrow Park 37 50					
Burton 140 23					
Deer Park 28 75					
Edgewood 761 70					
Forsland 115 20					
Hallett 822 09					
Harrop 219 20					
Proctor 1,038 41					
Revelstoke 2,061 63					
Russell's 1,809 71					
Sunshine Bay 172 85					
West Demars 6,402 71					
Wilmer 116 26					
Generally 3,546 54					
		22,640 98			22,640 98
Columbia River, survey		13,809 32			13,809 32
Comaplix, wharf		1,514 00			1,514 00
Crawford, wharf		1,441 87			1,441 87
Crofton, wharf		3,860 28			3,860 28
Dease River, improvements		2,512 42			2,512 42
Decourcy Islands, deeping channel between 1st and 2nd islands	614 50				614 50
Deep Cove, wharf		2,813 43			2,813 43
Duncan's station, to tidewater, survey		330 55			330 55
East Arrow Park, wharf		5,499 84			5,499 84
Esquimalt, new dry dock		264,647 65			264,647 65
" old " "	2,278 49	3,475 00		17,485 10	23,238 59
Fraser and Thompson Rivers, wharfs—					
Langley, wharf			141 19		141 19
Nelson Road, wharf		1,788 57			1,788 57
Ruskin, wharf		2,499 98			2,499 98
Salmon, wharf extension		1,296 39			1,296 39
Sumas, wharf			47 25		47 25
Generally		5,969 41			5,969 41
Fraser River, improvements	86,605 10				86,605 10
" removal of snags		40,649 76			40,649 76
" training piers		98,288 39			98,288 39
" wing dams (Lower)		30,520 18			30,520 18
Friendly Cove, Nootka Sound, wharf		101 19			101 19
Gabriola Island, wharf at south end		1,996 05			1,996 05
Goose Bay (Observation Inlet), wharf (shed)		456 02			456 02
Gorge Harbour, landing float		1,059 07			1,059 07
Gower Point, wharf		1,837 09			1,837 09
Grantham's Landing (Howe Sound), wharf		4,276 75			4,276 75
Grey Creek, wharf		5,462 57			5,462 57
Hardy Bay, wharf			9 50		9 50
Holberg (Vancouver Island), wharf		9,883 65			9,883 65
Holleyburn (North Vancouver), wharf			2,029 14		2,029 14
Howe Sound, removal of snags		3,266 06			3,266 06
Invermere, wharf		2,034 53			2,034 53
Kaslo, wharf		4,461 67			4,461 67

PART II—STATEMENT A—EXPENDITURE—*Continued.*

Name of Work.	Dredging.	Construction and Improvements.	Repairs.	Staff and Maintenance.	Total.
HARBOURS AND RIVERS.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
British Columbia—Continued.					
Kootenay Bay, wharf		6,477 17			6,477 17
Kootenay Lake	5,583 66				5,583 66
Lasquette, wharf			21 85		21 85
Lillooet River, South Branch, channel	4,142 18				4,142 18
Lockport (Moresby Island), wharf		3,940 75			3,940 75
Lower Valdes Island, floats		1,636 35			1,636 35
McMurdo, wharf		555 93			555 93
Massett (Graham Island) wharf, shed		700 00			700 00
" (White Settlement), wharf		5,064 50			5,064 50
Metchosin, wharf		560 00			560 00
Naas River	5,544 29				5,544 29
Nadoo River, landing floats at mouth		1,000 00			1,000 00
Nanaimo Harbour	1,969 55	2,042 32			4,011 87
Needles, wharf		6,039 24			6,039 24
Nicomekel River, wharf		1,051 91			1,051 91
Okanagan Lake	5,818 26	1,974 83			7,793 09
Okanagan Mission, wharf		2,055 38			2,055 38
Okanagan River, protection works		5,292 02			5,292 02
Pender Harbour, wharf		3,968 52			3,968 52
Pender Island, survey		745 43			745 43
Pitt River, wharf (Fraser River)	89,187 68	2,572 19			91,759 87
Point Cowan (Bowen Island), wharf		3,986 00	30 50		4,016 50
Port Essington, landing float	1,323 75	1,000 00			2,323 75
Port Haney, wharf		1,425 60			1,425 60
Powell River, breakwater		2,127 50			2,127 50
Prince Rupert, quarantine wharf		12,931 09			12,931 09
Pritchard, wharf		119 07			119 07
Quatsino, wharf extension		2,287 99			2,287 99
Queenston (Yakoon River), wharf		5,140 30			5,140 30
Refuge Bay (Porcher's Island) wharf, shed		1,687 92			1,687 92
Renata, wharf		5,641 47			5,641 47
Retreat Cove, wharf		1,432 97			1,432 97
Robert Bay, wharf			48 00		48 00
Rocky Point, wharf		2,575 88			2,575 88
Roy's Beach, wharf		3,558 54			3,558 54
Saanichton, wharf		17 80			17 80
Sand Spit Point, wharf and shed		5,189 87			5,189 87
Savary Island, wharf		1,388 91			1,388 91
Scotch Creek Flat, Shuswap Lake wharf		3,538 45			3,538 45
Seymour Arm, wharf		6,188 70			6,188 70
Shelter Point (Gillis Bay), wharf		5,644 50			5,644 50
Shoal Bay (Thurlow Island), wharf		4,540 70			4,540 70
Shuswap Lake	347 65				347 65
Shutty Bench, wharf		717 00			717 00
Sidney Island, wharf			2,080 15		2,080 15
Sidney (Vancouver Island), landing float		1,980 08			1,980 08
Skeena River	10,209 29				10,209 29
Sooke Harbour, entrance	1,583 19		2,466 14		4,049 33
Sorrento, wharf		2,321 75			2,321 75
South Gabriola Island, wharf		498 50			498 50
Spiller River, wharf (shed)		492 68			492 68
Squamish wharf			3,796 92		3,796 92
Stewart (Head, Portland Canal), wharf			1,646 75		1,646 75
Summerland, wharf		13,402 83			13,402 83
Surf Inlet, wharf		1,213 70			1,213 70
Thompson river, improvements	10,284 67	1,038 72			11,323 39
Tofino, wharf extension and repairs		972 55	2,025 00		2,997 55
Ucluelet, wharf		4,980 42			4,980 42
Union Bay, wharf extension and repairs		2,581 00	919 00		3,500 00
Upper Fraser River and tributaries—					
Fort George Canyon $12,114 75					
Giscombe Rapids 4,112 04					

PART II—STATEMENT A—EXPENDITURE—*Continued.*

Name of Work.	Dredging.	Construction and Improvements.	Repairs.	Staff and Maintenance.	Total.
HARBOURS AND RIVERS.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
British Columbia—Continued.					
Upper Fraser River and tributaries—*Con.*					
Hudson Bay Gardens	$ 2,186 20				
Generally	5,202 37	23,615 36			23,615 36
Upper Lillooet River—Removal of obstructions		2,639 52			2,639 52
Van Anda, wharf		1,018 87			1,018 87
Williams Head, quarantine station		5,713 26			5,713 26
Willow Point (Lake Kootenay), wharf		7,525 00			7,525 00
Windermere, wharf		1,574 05			1,574 05
Winter Harbour, wharf (Melville Island)			199 15		199 15
Wolfsen Bay, wharf		3,048 76			3,048 76
Wooden River, landing float		850 00			850 00
Vancouver Harbour	115,269 75	320,448 79			435,718 54
Victoria Harbour	201,421 47	331,892 21			533,313 68
Generally	18,788 57			18,319 92	37,108 49
Totals, British Columbia	623,576 72	1,386,413 08	25,349 80	35,805 02	2,071,144 62
Generally.					
General expenses of staff, etc	6,883 30			20,075 60	26,958 90
Salaries of district engineers, assistants, etc				314,999 21	314,999 21
Totals, harbours and rivers, generally	6,883 30			335,074 81	341,958 11
Dredges and Dredging Plant.					
Maritime Provinces		230,909 22	23,086 32*		253,995 54
Ontario and Quebec		155,851 54	111,446 18		267,297 72
Manitoba, Saskatchewan and Alberta		25,393 34	20,906 01		46,299 35
British Columbia		159,118 25	175,257 31		334,375 56
Totals, Dredges and dredging plant		571,272 35	330,695 82		901,968 17

* A further sum of $114,512.76, expended for repairs to dredges in the Maritime Provinces, considered as inseparable from working expenses, has been apportioned with the cost of dredging the various harbours in the Maritime Provinces.

PART II—STATEMENT A—EXPENDITURE—*Continued.*

Name of Work.	Construction and Improvements.	Repairs.	Staff and Maintenance.	Totals.
	$ cts.	$ cts.	$ cts.	$ cts.
SLIDES AND BOOMS.				
River Saguenay	1,511 17	1,799 21	7,448 48	10,758 86
River St. Maurice	68,861 71	313 57	45,058 70	114,233 98
Ottawa District—				
Black River		1,347 10		1,347 10
Coulonge River		1,158 60		1,158 60
Gatineau River		463 53	600 00	1,063 53
Madawaska River		1,078 82		1,078 82
Ottawa River		1,489 33	24,021 36	25,510 69
Petawawa River		7,713 67		7,713 67
Trent and Newcastle District	856 17	357 63	200 00	1,413 80
Collection of Slide and Boom dues			3,155 57	3,155 57
Totals, Slides and Booms	71,229 05	15,721 46	80,484 11	167,434 62
ROADS AND BRIDGES.				
Maritime Provinces.				
Interprovincial bridge, Metapedia	4 10			4 10
Metapedia Road, improvements and repairs	998 99	222 70		1,221 69
Quebec and Ontario.				
Interprovincial bridge, Hawkesbury	8,485 79			8,485 79
Chapeau bridge (new)	5,804 99			5,804 99
North Timiskaming bridge	1,858 62			1,858 62
Portage du Fort bridge		1,094 30		1,094 30
Ottawa City bridges and streets maintained by Government—				
Chaudière bridge and approaches		3,630 34		3,630 34
Connaught Place and Wellington street	88,579 16		9,043 49	97,622 65
Nepean Point-electric installation	4,495 63			4,495 63
Lighting all above			1,808 56	1,808 56
York bridge (Grand river)		875 00		875 00
Manitoba.				
Miniota bridge	750 00			750 00
Saskatchewan and Alberta.				
Banff bridge		1,830 62		1,830 62
Edmonton bridge		1,145 92		1,145 92
Totals, roads and bridges	110,977 28	8,798 88	10,852 05	130,628 21
TELEGRAPH LINES.				
Newfoundland.				
Cape Ray (subsidy)			250 00	250 00
Maritime Provinces.				
Bay of Fundy			2,311 05	2,311 05
Cape Breton	1,462 41		34,360 18	35,822 59
Cape Negro Island	808 00			808 00
Escuminac	1,052 41		1,346 00	2,398 41
Prince Edward Island and Mainland cable	545 46		13,893 32	14,438 78
Seal Island	808 00			808 00

PART II—STATEMENT A—EXPENDITURE—*Continued.*

Name of Work.	Construction and Improvements.	Repairs.	Staff and Maintenance.	Total.
TELEGRAPH LINES.	$ cts.	$ cts.	$ cts.	$ cts.
Quebec Mainland.				
Charlesburg—Martineau Mills	4,892 20		368 94	5,261 14
Father Point (subsidy)			1,000 00	1,000 00
Laval telephone line			136 41	136 41
North Shore lines—east of Bersimis			30,437 47	30,437 47
" " west of Bersimis	140 92		19,658 48	19,799 40
St. Ignace de Loyola-Ille du Pads line	1,718 29			1,718 29
Timiskaming line	2,640 91		1,974 60	4,615 51
Quebec Islands.				
Anticosti			12,756 94	12,756 94
Grosse Isle quarantine system			6,582 56	6,582 56
Crane Island-Goose Island line	781 00		112 61	893 61
Isle aux Coudres			200 00	200 00
Magdalen Islands			4,305 20	4,305 20
Cable ship *Tyrian*			58,901 84	58,901 84
Maritime Provinces and Gulf generally (including cable in store, $7,679)			8,666 01	8,666 01
Ontario.				
Manitoulin Island—Cockburn Island	2,944 79			2,944 79
Pelee Island			519 94	519 94
Saskatchewan and Alberta.				
Qu'Appelle, Edmonton, Athabaska and Moosejaw—Wood Mountain systems	43,273 23		86,986 96	130,260 19
British Columbia and Yukon.				
Ashcroft-Dawson system	16,967 85		232,984 93	249,952 78
Edgewood-Nakusp	898 65		771 47	1,670 12
Golden-Windermere	1,326 91		3,445 14	4,772 05
Kamloops-Okanagan	4,307 62		30,561 74	34,869 36
Powell River-Vancouver	12,609 00			12,609 00
Queen Charlotte Islands	13,917 09			13,917 09
Vancouver Island lines	33,528 30		60,100 35	93,628 65
British Columbia generally			5,093 07	5,093 07
Telegraph service generally			6,030 08	6,030 08
Totals telegraph lines	144,623 04		623 755 29	768,378,33
MISCELLANEOUS.				
Surveys—				
Maritime Provinces			32,129 30	
Quebec			40,726 36	
Ontario			48,740 23	
Manitoba			6,206 85	
Saskatchewan and Alberta			3,523 76	
British Columbia			15,024 59	
Georgian Bay and Montreal Waterway			7,560 00	
Generally			3,706 00	157,617 09
Upper Ottawa Storage Dams—				
Kipawa dam	1,787 49			1,787 49
" " land damages	1,000 00			1,000 00
Quinze dam	166,608 51			166,608 51
Timiskaming dam	114,121 92			114,121 92
" " land damages	9,790 06			9,790 06
Generally	9,163 64			9,163 64

PART II—STATEMENT A—EXPENDITURE—*Continued.*

Name of Work.	Construction and Improvements.	Repairs.	Staff and Maintenance.	Total.
MISCELLANEOUS.	$ cts.	$ cts.	$ cts.	$ cts.
Upper Ottawa River investigation	25,153 33			25,153 33
Dry Docks Generally—Preparing plans, etc., regarding proposed docks	9,993 38			9,993 38
River gaugings			9,761 15	9,761 15
River Richelieu *re* proposed dams at St. Johns, Que., Payments to Messrs. Marceau & Valiquet.	1,000 00			1,000 00
Deep Waterways Commission			24,331 82	24,331 82
International Joint Commission			3,700 00	3,700 00
International Commission, River St. John, N.B.			11,672 41	11,672 41
Investigations under Inquiries Act			324 58	324 58
River St. Lawrence and Great Lakes, Waterways Commission			16,742 59	16,742 59
River St. Lawrence metering			1,925 97	1,925 97
Test boring machines	6,168 89			6,168 89
Monument to His Majesty the late King Edward VII	1,291 48			1,291 48
Monument to the memory of the late Sir L. H. Lafontaine and the late Hon. Robt. Baldwin	11,528 50			11,528 50
Monument to the memory of the late Hon. Thos. D'Arcy McGee	408 97			408 97
Monument to Madeleine de Verchères	15,124 20			15,124 20
Gratuities to widows or other representatives of 21 deceased employees, under Civil Service amendment Act, Sec. 41			3,626 97	3,626 97
Compensation to Robert McAllister, *re* injuries received in Prescott post office, Ont.			150 00	150 00
Totals, Miscellaneous	373,140 37		229,852 58	602,992 95

SESSIONAL PAPER No. 19

PART II—STATEMENT A—EXPENDITURE—*Concluded.*

Name of Work.	Dredging.	Construction and Improvements.	Repairs.	Staff and Maintenance.	Total.
RECAPITULATION.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Totals, Public Buildings—					
Nova Scotia		134,148 08	16,322 59	61,068 21	211,538 88
Prince Edward Island		7,385 56	4,810 65	11,581 23	23,777 44
New Brunswick		354,463 03	9,456 92	49,684 13	413,604 08
Quebec		2,046,683 64	43,470 96	258,294 93	2,348,449 53
Ottawa Buildings		2,694,560 18	404,399 83	696,167 46	3,795,127 47
Ontario (excluding Ottawa)		2,224,863 95	59,895 44	201,814 71	2,486,574 10
Manitoba		376,831 30	12,392 02	81,865 94	471,089 26
Saskatchewan		673,117 12	10,756 82	66,191 31	750,065 25
Alberta		684,587 57	15,162 62	71,856 20	771,606 39
British Columbia		812,890 01	15,240 41	98,954 96	927,085 41
Yukon Territory		8,667 71		80,732 55	89,400 26
Public Buildings, Generally		32,009 90		77,136 70	109,146 80
Totals, Harbours and Rivers—					
Nova Scotia	356,785 75	504,036 92	71,552 96	13,160 01	945,535 64
Prince Edward Island	93,014 37	75,091 49	11,668 16	7,038 01	186,812 03
New Brunswick	1,822,697 76	1,509,106 01	12,256 82	16,673 71	3,360,734 30
Quebec	353,297 04	955,929 81	139,680 57	63,391 23	1,512,298 65
Ontario	1,991,541 12	2,119,375 58	61,880 61	93,757 01	4,266,554 32
Manitoba	68,665 74	143,786 04	7,914 93	17,959 93	238,326 64
Saskatchewan and Alberta	9,872 82	88,162 89		1,069 97	99,105 68
British Columbia	623,576 72	1,386,413 08	25,349 80	35,805 02	2,071,144 62
Harbours and Rivers, Generally	6,883 30			335,074 81	341,958 11
Totals, dredges and dredging plant		571,272 35	330,695 82		901,968 17
" slides and booms		71,229 05	15,721 46	80,484 11	167,434 62
" roads and bridges		110,977 28	8,798 88	10,852 05	130,628 21
" telegraph lines		144,623 04		623,755 29	768,378 33
" miscellaneous		373,140 37		229,852 58	602,992 95
Grand totals of expenditure	5,326,334 62	18,103,351 96	1,277,428 30	3,284,222 06	27,991,336 94

PART II—STATEMENT B—SHOWING the Cost of the following Service for each Public Building, etc., (the total for each Province being carried into Statement 'A').

Name of Building.	Rents.	Salaries and Supplies for Care-takers.	Heating.	Lighting.	Water.	Total.
Nova Scotia.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Amherst post office, etc		502 60	275 93	1,193 14	16 00	1,987 67
Annapolis post office, etc		467 56	284 10	147 00	30 00	928 66
Antigonish post office, etc		449 96	266 36	432 54	75 00	1,223 86
Arichat post office, etc		178 41	274 50	58 94	0 50	512 35
Baddeck post office, etc		431 17	200 00	32 32		663 49
Bridgewater post office, etc		465 12	32 00	273 35	31 50	801 97
Canso post office, etc		431 82	322 75	140 50	10 00	905 07
Dartmouth post office, etc		466 30	89 30	158 54	23 50	737 64
Digby post office, etc		420 86	322 50	260 83	64 00	1,068 19
Glace Bay post office, etc		619 70	263 95	601 60	33 00	1,518 25
Guysborough post office, etc		236 95	244 50	190 00		671 45
Halifax Archives	349 25	7 50				356 75
" Asst. Rec. Gen's. Office, Appraiser's office, E.W	950 00	986 84	272 90	86 79	57 67	2,354 20
" Clerk of Works	37 50					37 50
" Custom house and Inland Revenue	54 66	5,179 63	753 25	722 95	579 13	7,289 62
" immigration shed		1,424 84	1,282 35	2,724 80	823 60	6,255 59
" immigration detention hospital			667 14	292 22	410 57	1,369 93
" Militia and Defence Dept.—Dennis building	778 00					778 00
" post office		5,641 83	640 16	2,695 43	572 72	9,550 14
Inverness post office, etc		452 97	286 64	332 90	45 00	1,117 51
Kentville experimental farm			318 20	225 66		543 86
" post office		413 96	446 50	203 67	50 00	1,114 13
Liverpool post office, etc		438 81	214 50	188 97	22 50	864 78
Lunenburg post office, etc		498 26	272 10	491 30	59 00	1,320 66
Nappan experimental farm			229 40			229 40
New Glasgow post office		481 00	238 59	454 02	100 00	1,313 61
North Sydney, engineer's office	600 00				13 50	613 50
" immigration building			87 50	44 69		132 19
" post office		453 85	49 80	491 28	32 00	1,026 93
Parrsboro public building	7 50	233 31	281 50	110 15		632 46
Pictou custom-house		300 00	328 40		12 20	640 60
" post office		315 90	245 00	5 40		566 30
Shelburne post office		470 86	217 87	274 57		963 30
Springhill post office, etc		535 26	232 49	335 97	30 00	1,133 72
Sydney post office		614 52	563 00	950 82	87 00	2,215 34
" immigration office				4 40		4 40
Sydney Mines post office, etc		466 78	21 75	497 80	30 00	1,016 33
Truro post office, etc		433 71	7 50	672 45	30 00	1,143 66
Westville post office		417 41	299 60	202 02	21 00	940 03
Weymouth post office	75 00					75 00
Windsor post office, etc		510 22	297 80	422 15		1,230 17
" immigration office	112 50					112 50
Wolfville post office			296 93			296 93
Yarmouth post office		510 76	363 30	995 03	72 00	1,941 09
Totals, Nova Scotia	2,964 41	25,458 67	11,490 06	16,954 20	3,331 39	60,198 73
Prince Edward Island.						
Charlottetown Marine and Fisheries	47 00	544 51	267 05	59 44	34 00	952 00
" post office	14 58	2,994 80	833 23	2,073 32	168 75	6,084 68
" experimental farm			155 31	62 99		218 30
" immigration agency	174 96					174 96

PART II—STATEMENT B—EXPENDITURE—*Continued.*

Name of Building.	Rents.	Salaries and Supplies for Caretakers.	Heating.	Lighting.	Water.	Total.
Prince Edward Island—Concluded.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Georgetown post office, etc		150 03	182 08	29 55	56 25	417 91
Montague post office, etc		168 21	254 18	77 08		499 47
Souris post office, etc		454 19	379 51	206 58		1,040 28
Summerside post office		451 29	461 27	409 74	38 00	1,360 30
Tignish post office		498 33	296 00	39 00		833 33
Totals, Prince Edward Island.	236 54	5,261 36	2,828 63	2,957 70	297 60	11,581 23
New Brunswick.						
Bathurst post office, etc		472 79	340 39	592 53		1,805 71
Campbellton post office		426 21	446 75	739 60	56 25	1,668 81
Carleton, St. John West, post office		399 96	2 00	40 59		442 55
Chatham post office and engineer's office	15 00	304 85	401 70	406 47	20 00	1,178 02
Clair immigration office	130 00					130 00
Dalhousie post office, etc		411 31	285 50	47 64	26 00	770 45
Edmundston immigration office	120 00					120 00
Fairville post office	9 55	471 29	181 61	199 83	18 00	880 28
Fredericton engineer's office	318 00			3 36		321 36
" immigration office	449 96		85 00	14 43	7 50	556 89
" experimental farm			42 64			42 64
" post office		527 92	543 54	678 56	81 00	1,831 02
Grand Falls post office		447 60	620 63	46 50	64 50	1,179 23
Hartland post office		510 12	279 67	34 00	30 00	853 79
Hillsborough post office		428 46	146 30	56 04		630 80
Marysville post office, etc		151 60	297 81	23 40	26 00	498 81
Moncton post office, etc		497 00	506 41	534 37	134 00	1,671 78
Newcastle post office, etc		478 13	317 33	501 30	35 00	1,331 76
Richibucto post office		441 00	369 91	279 66		1,090 57
St. John census commissioners office						
" custom-house	309 25	3,127 27	2,119 09	790 08	1,541 32	7,887 01
" detention hospital		623 00				623 00
" engineer's office	1,237 25					1,237 25
" examining warehouse	250 00					250 00
" immigration building	2,105 32	1,340 00	1,553 99	661 88	695 42	6,356 61
" post office, West St. John		3,125 24	878 13	3,133 75	1,195 89	8,333 01
" quarantine station, Partridge island		720 00			22 00	742 00
" savings bank		1 30	395 51	121 08	43 91	561 80
St. Leonard immigration building	98 00					98 00
St. Stephen immigration building			29 60		6 34	35 94
" post office	150 00	590 11	239 10	428 70	112 36	1,520 27
" Bridge post office and custom house				18 90	3 25	22 15
Sussex post office, etc		434 06	409 50	96 44	49 50	989 50
Tracadie Lazaretto		754 03	1,882 88	45 45		2,682 36
Woodstock post office		539 95	344 67	392 14	34 00	1,310 76
Totals, New Brunswick	5,222 33	17,223 20	12,719 66	10,286 70	4,202 24	49,654 13
Quebec.						
Acton Vale post office		510 09	120 55	144 99	24 00	799 63
Arthabaska post office		423 14	364 40	318 37	143 75	1,249 66
Asbestos post office	78 75					78 75
Aylmer post office		148 02	150 75	251 46	29 25	579 48
Beauharnois post office	137 50	2 80				140 30
Berthierville post office		82 90	211 15	51 13	34 40	379 58
Black Lake post office	150 00					150 00
Buckingham post office		134 25	252 30	132 25	31 00	549 80
Cacouna post office	87 50					87 50
Cap Rouge experimental farm			244 50			244 50

PART II—STATEMENT B—EXPENDITURE—*Continued.*

Name of Building.	Rents.	Salaries and Supplies for Caretakers.	Heating.	Lighting.	Water.	Total.
Quebec—Continued.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Chicoutimi post office		620 16	394 35	472 66	225 00	1,712 17
Coaticook post office, etc		548 47	287 60	272 57	50 00	1,158 64
Cookshire post office, etc		399 96	226 00	144 20	15 00	785 16
Drummondville post office and custom-house		430 91	236 28	82 25	11 00	760 44
Dundee custom-house			96 50			96 50
Farnham (West) post office		311 30	110 00	82 09	20 00	523 39
Fraserville post office, etc		432 06	255 22	160 67	200 00	1,047 95
Granby post office, etc		391 08	280 00	221 56	150 00	1,042 64
Hull post office		162 60	189 25	426 04	290 57	1,068 46
Iberville post office		480 00	74 45	127 24		681 69
Isle Verte engineer's office	74 00					74 00
Joliette post office		514 92	298 04	163 55	108 00	1,084 51
" post office, inspector's office	66 00					66 00
" weights and measures office	293 33					293 33
Knowlton post office and armoury		189 84	301 24	186 83	21 00	698 91
Lachine post office		137 66	181 00	96 95	57 07	472 68
Lachute post office		409 51	199 55	414 23	37 50	1,060 79
Laprairie post office		172 20	198 42	41 15	45 00	456 77
L'Assomption post office		312 47	179 75	97 21	65 00	654 43
Lévis post office, etc		524 32	495 00	541 19		1,560 51
Longueuil post office		332 85	102 00	95 10		619 95
Magog post office		470 15	281 09	292 97	78 56	1,122 77
Marieville post office		368 88	163 12	134 78	42 00	708 78
Megantic (Lake) post office		437 08	266 50	245 34	21 00	969 92
Montmagny post office and engineer's office	35 00	441 27	223 69	141 40	50 00	891 36
Montreal Canadian ordnance corps ordnance stores	2,000 00					2,000 00
" archives office, Quebec bank building	446 79			11 20		457 99
" custom, express and parcel office	6,250 00	1,570 10	1,262 09	724 20	738 17	10,544 56
" custom-house	33 54	5,505 27	1,574 53	1,085 71		8,199 05
" Custom-house canal		0 80	0 80	82 11		83 71
" engineer's office	228 43					228 43
" engineer officer supervising	800 04				26 00	826 04
" examining warehouse	78 96	14,129 31	1,400 79	3,294 62	1,119 24	20,022 92
" immigration building, hospital and office	2,666 22	8 75	565 00	337 26	486 70	4,063 93
" Intercolonial railway		1,067 71	550 95	114 90	117 37	1,850 93
" Marine and Fisheries department	625 00			1 50		626 50
" post office (main)	454 51	60,312 41	3,928 94	19,828 60	3,329 64	87,854 10
" public buildings		1,685 94				1,685 94
" " "B" (Ste Catherine)	1,375 00	2,027 65	543 19	935 95	449 11	5,330 90
" public buildings "B" additional	375 00					375 00
" public buildings "C" (Amherst)	250 00	1,262 49	487 15	740 08	668 87	3,408 59
" public buildings "D"		841 92	701 16	212 09	112 52	1,867 69
" " "E"		876 06	359 85	525 92	104 29	1,866 12
" " "F"	1,875 00	9 84	18 74		12 24	1,915 82
" " "N"	900 00	67 40	13 65	69 00	18 10	1,068 15
" " "S"		112 50	282 77	100 21	37 83	533 31
" Hochelaga P.O		231 47	232 48	261 32	69 84	795 11
" public works office	618 48			4 80	13 00	636 28
" " workshop, Commissioners St	440 00					440 00
" Shaughnessy building	3,412 09					3,412 09
" St. Cunegonde post office	1,750 00					1,750 00
" St. Henri post office		400 18	162 78	262 15	43 54	868 65
Nicolet P.O		560 66	184 52	190 07	70 50	1,005 75
Nominigue immigration building		300 00		10 80		310 80

PART II—STATEMENT B—EXPENDITURE—*Continued.*

Name of Building.	Rents.	Salaries and Supplies for caretakers.	Heating	Lighting.	Water.	Total.
Québec—Continued.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Peribonka immigration building		301 05	13 50	3 00		317 55
Pierreville post office		179 20	99 35	37 40	15 00	330 95
Plessisville "		137 76	235 38	90 48	74 53	538 15
Quebec Canadian Pacific Railway Station	300 00					300 00
" Citadel building, Governor General's quarters	100 80	622 50	743 60	92 81		1,559 71
" colonization agency	225 00					225 00
" culler's office		540 00				540 00
" custom house	39 11	2,114 78	1,610 81	604 51	800 00	5,169 21
" engineer's office	171 75					171 75
" " additional 103 St. Jean St.	96 75					96 75
" examining warehouse		1,626 65	729 69	602 54	450 00	3,408 88
" immigration detention hospital	225 00	0 50	821 98	1,053 78	461 25	2,562 51
" immigration building or shed	600 00		892 48	355 33	1,456 25	3,504 06
" " shed, new			441 25			441 25
" " office, temporary			92 11			92 11
" marine school, 116 Mountain Hill	336 67	4 80	543 07		750 00	1,634 54
" ministers' rooms	14 00					14 00
" observatory				87 06	50 00	137 06
" post office	125 83	9,709 83	1,147 06	1,991 54	750 00	13,721 06
" postal station "B" St. Peter's St.	2,250 00			50 75		2,300 75
" inland revenue, inspector weights and measures			17 96	18 66		36 62
" St. Roch post office		1,148 12	365 76	414 80	400 00	2,328 68
" St. Sauveur post office	540 00	150 00			40 00	730 00
Richmond post office, etc		471 86	305 40	352 53	25 00	1,154 79
Rigaud post office		321 05	193 28	24 15	22 00	560 48
Rimouski engineer office	300 00	7 85		59 22		367 07
" post office		307 92	258 00	178 17	112 50	856 59
Rivière du Loup post office			89 00			89 00
Roberval immigration shed		250 00	350 00	214 77	25 00	839 77
" post office		50 00	261 00			311 00
Rock Island public building		339 98	333 74	111 33	21 38	806 43
Shawinigan Falls custom house, post office		234 65	324 00	71 75	5 78	636 18
Sherbrooke excise office	629 31					629 31
" post office	16 75	628 29	483 80	514 50	50 00	1,693 34
" " inspector's office	539 50			19 97		559 47
Sorel post office, etc		538 75	524 54	524 27	257 65	1,845 21
Ste. Anne de Bellevue post office	150 00					150 00
St. Eustache post office, etc	144 00			51 37		195 37
St. Flavie station	15 50					15 50
St. Georges, East Beance post office	200 00					200 00
St. Gabriel de Brandon post office	451 33			24 00		475 33
St. Hyacinthe custom house and post office		674 54	416 74	385 33	150 00	1,626 61
" inland revenue		375 83	52 56	38 16	100 00	566 55
St. Jerome post office, etc		112 96	333 62	144 23	64 03	954 84
St. Johns custom house		349 92	106 29	33 00		489 21
" post office		300 00	213 96	248 80	110 00	872 76
St. Lambert post office		8 00	272 75	68 14		348 89
St. Leonard immigration detention building	7 00					7 00
St. Regis custom-house and Indian office			124 91			124 91
St. Rose post office	162 00					162 00
St. Therese post office			200 44			200 44
Terrebonne post office, etc		300 54	193 37	64 87	15 00	573 78
Thetford Mines post office, etc		218 95	275 75	269 88	100 00	894 58
Three Rivers engineer office	144 00					144 00

PART II—STATEMENT B—EXPENDITURE—*Continued.*

Name of building.	Rents.	Salaries and supplies for Caretakers.	Heating.	Lighting.	Water.	Total.
Quebec—Concluded.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Three Rivers examining warehouse					6 83	6 83
" post office		953 40	122 00	682 25	50 83	1,808 48
Trois Pistoles post office	125 00					125 00
Valleyfield post office, etc		619 50	488 46	283 04	90 00	1,481 00
Vercheres public building		25 00				25 00
Victoriaville post office, etc		365 60	294 68	472 87	50 00	1,183 15
Total for Quebec	33,669 94	124,679 13	32,714 38	44,399 73	15,669 09	251,132 27
Ottawa Buildings.						
Archives building		1,440 00	966 00	451 49		2,857 49
Astronomical observatory			611 30	742 16		1,353 46
Experimental farm			4,617 60	1,266 35		5,883 95
Fisheries Museum			269 80	398 56		668 36
Fuel testing building (Mines)			455 00	383 27		838 27
Government grounds				297 97		297 97
Mines building (Sussex St)		2,640 00	1,043 70	767 38		4,451 08
Naval Service building (Sussex St.)		720 00	355 00	296 62		1,371 62
Parliament and departmental buildings		60,229 92	53,251 19	29,439 11		142,920 22
Post Office		4,860 00	1,778 00	1,032 07		7,670 07
Printing Bureau			7,784 00	4,805 26		12,589 26
Public Works—(workshop)		1,200 00	1,001 10	646 92		2,848 02
Royal Mint		1,440 00	2,605 70	302 52		4,348 22
Supreme Court		1,200 00	1,057 00	461 14		2,718 14
Victoria Island (ship yard)				186 82		186 82
Victoria Memorial Museum		7,200 00	6,286 00	2,733 42		16,219 42
Sundry buildings, occupied as minor departmental offices :—						
Wellington st.—Victoria st. district			901 70	820 80		1,722 50
" Sparks st. (Egan block)				223 34		223 34
Sundry rented buildings	290,336 95	17,160 00	4,969 50	14,490 58		326,957 03
Total Ottawa buildings	290,336 95	98,089 92	87,952 59	59,745 78		536,125 24
Ontario.						
Alexandria post office, etc		511 07	256 49	226 80	7 50	1,001 86
Almonte post office		426 59	503 14	77 02	56 25	1,063 00
Amherstburg post office		410 71	235 70	150 10	40 00	836 51
Arnprior post office		463 71	324 76	708 81	32 00	1,529 28
Athens post office			126 00	15 00		141 00
Barrie post office		450 27	353 38	282 82	50 00	1,136 47
Belleville post office		724 42	690 34	868 18	83 25	2,366 19
Berlin post office		431 96	275 94	233 54	31 40	972 84
Blenheim post office	200 00					200 00
Bowanville post office		470 50	213 60	154 16	10 00	848 26
Brampton post office		451 21	452 25	157 15	38 80	1,099 41
Brantford post office		645 63	403 90	254 25	56 88	1,360 66
Bridgeburg post office, etc		368 97	166 50	164 28	20 00	719 75
Brockville post office		738 49	502 15	742 75	170 00	2,153 39
Carleton Place post office, etc		411 76	187 00	160 19		758 95
Cayuga post office		289 96	60 37	69 33	6 0	425 66
Chatham post office, etc		656 75	256 76	188 05	18 94	1,120 50
Chesley post office			280 04			280 04
Clinton post office		211 72	152 53	143 35	7 85	515 45
Cobalt post office	2,000 00					2,000 00
Cobourg post office		519 65	280 00	550 19	45 50	1,395 34
Cornwall post office		601 80	475 82	679 72	37 50	1,794 84
Deseronto post office		561 77	300 00	368 27	53 2	1,283 32
Dresden post office		214 46	75 00	91 20	17 50	398 16
Dundas post office	200 00	377 30	487 53	49 48	12 20	1,126 51
Flora post office		372 01	209 34	309 00		890 35
Essex post office		399 96	450 95	244 11	37 50	1,132 52

SESSIONAL PAPER No. 19

PART II—STATEMENT B—EXPENDITURE—*Continued.*

Name of Building.	Rents.	Salaries and Supplies of Caretakers.	Heating.	Lighting.	Water.	Total.
Ontario—Continued	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Fergus post office		419 66	198 68	397 90		1,016 24
Fort William engineer's office	900 00					900 00
" immigration office	121 80			3 33		125 13
" inland revenue	170 00					170 00
" post office		573 16	562 50	510 12	90 00	1,735 78
Galt custom house and post office		529 57	299 90	217 34	26 73	1,073 54
Gananoque custom house			178 00	68 33	15 51	261 84
" post office		1 37	68 63	169 60	16 37	255 97
Glencoe post office		424 55	198 67	252 66	1 00	876 88
Goderich post office, etc		486 00	261 69	391 47	60 00	1,199 16
Gore Bay immigration buildings			4 12			4 12
Guelph post office		615 67	500 92	514 98	93 32	1,724 89
Hamilton custom house		402 63	154 00	31 98		588 61
" immigration building and office	220 00					220 00
" inland revenue			119 00	53 15	17 70	189 85
" post office and examining warehouse		4,845 93	1,281 68	1,402 89	750 00	8,280 50
" post office additional	100 00					100 00
" postal station B	1,200 00			65 62	8 90	1,274 52
Harriston post office		431 70	301 43	329 32	46 05	1,108 50
Hawkesbury post office		504 48	240 60	151 87	18 00	914 95
Ingersoll post office		514 28	331 26	244 11	18 15	1,107 80
Kenora post office		421 61	296 89	319 33	70 76	1,108 59
Kincardine post office		266 26	297 43	422 70	20 00	1,006 39
Kingston custom house		420 41	488 40	117 70	59 25	1,085 76
" inland revenue	2,242 81	651 50	686 00	100 80	56 83	3,737 94
" ordnance corps	1,000 00					1,000 00
" post office		1,060 76	719 25	1,147 85	59 50	2,987 36
Leamington post office		477 95	227 25	229 28	21 00	955 48
Lindsay post office, etc		492 70	317 14	114 12	30 00	953 96
Listowell post office		436 29		465 70	36 69	938 68
London, Coote building, immigration office	230 00					230 00
London custom house, etc		1,199 23	1,597 24	747 38	112 00	3,655 85
" post office		1,493 72	1,263 81	2,014 75	60 00	4,832 28
L'Original post office	125 00					125 00
Markham post office		603 91	52 09	46 65	1 00	703 65
Merrickville post office	250 00					250 00
Midland engineer's office	165 00					165 00
Mitchell post office		421 32	318 50	168 46	20 00	928 28
Mount Forest post office		384 25	244 93	247 82	27 22	904 22
Napanee post office		582 10	426 88	203 40	75 04	1,287 42
Niagara Falls post office		682 01	482 15	247 11	42 50	1,453 77
North Bay post office		890 85	592 00	334 45	32 77	1,850 07
Orangeville post office		605 00	190 87	239 34	20 00	1,055 21
Orillia post office		420 53	278 83	133 88	14 00	847 24
Oshawa post office		531 68	277 66	291 42	31 30	1,132 06
Owen Sound post office		533 10	636 38	250 61	72 99	1,493 08
Paris post office		408 26	155 30	79 56	53 60	696 72
Park Hill post office		229 69	192 58	61 69		483 96
Pembroke post office		426 86	350 14	229 60	36 00	1,042 60
Peterboro custom house		406 51	418 81	178 63	50 00	1,053 95
" customs house, temporary, 36-42 George street	320 00					320 00
" post office		721 56	477 69	276 78	75 00	1,551 03
Petrolea post office, etc		477 80	159 57	268 36	47 76	953 49
Picton post office		438 89	274 00	186 05	27 00	925 94
Port Arthur engineer's office	595 00					595 00
" immigration building	180 00		36 50	20 61	6 40	243 51
" immigration office	240 06		14 00	2 88		256 88
" post office	135 00	583 36	512 75	306 39	60 31	1,597 81
Port Colborne post office		434 51	40 20	77 70	20 00	572 41
Port Hope post office, etc		469 98	353 3	433 83	63 86	1,321 02
Port Perry post office		236 90	258 20	27 64	14 68	537 42

PART II—STATEMENT B—EXPENDITURE—*Continued.*

Name of Building.	Rents.	Salaries and Supplies for Caretakers.	Heating.	Ligthing.	Water.	Total.
Ontario—Continued.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Prescott customs house		46 38	188 75	46 27	75 00	356 40
" post office		573 46	193 25	225 75	75 00	1,067 46
Renfrew post office		417 11	333 04	626 15	26 50	1,402 80
Ridgetown post office	300 00					300 00
Sandwich post office, etc		378 82	206 70	59 34	11 00	655 86
Sarnia post office		622 95	326 81	215 61	50 18	1,215 55
Sault Ste. Marie post office		671 85	1,014 00	771 74	76 30	2,533 89
Seaforth post office		266 00	230 80	75 03		571 83
Simcoe post office		509 65	90 71	111 34	20 00	731 70
Smith's Falls post office, etc		414 01	224 85	230 29	66 75	935 90
Stratford post office, etc		674 23	487 98	351 10	58 00	1,571 31
Strathroy post office		467 02	239 09	217 44	22 50	946 05
Ste. Catharines post office		474 50	511 85	412 80	128 88	1,528 03
Ste. Mary's post office, etc		428 97	313 60	249 78	20 86	1,013 21
St. Thomas post office		487 18	337 00	236 93	14 98	1,076 09
Tilbury post office		45 22	256 53			301 75
Tilsonburg post office		474 94	191 20	265 25	36 00	967 39
Toronto Asst. Rec. Gen'ls and Inland Rev. office		977 72	363 92	239 57	13 66	1,594 87
" custom-house, George and Frank St		4,999 16	1,037 07	592 30	78 61	6 707 14
" customs express parcel office—Canadian Exp., Dom. Exp.		13 10	36 82	63 41	14 70	128 03
" engineer's office	2,233 40			65 55		2,298 95
" examining warehouse	62 97	9,087 56	1,930 77	612 63	108 28	11,832 21
" garage		1,428 16	249 61	220 23	52 59	1,950 59
" immigrant sheds	1,000 00					1,000 00
" marine & fisheries	410 00			5 90		415 90
" post office & post office annex		16,401 19	2,036 70	5,484 02	544 22	24,466 13
" public building		6,210 88				6,210 88
" parcel post, Adelaide st					14 18	14 18
" new public building, Victoria st			10 26			10 26
" postal station "A" Union station	3,600 00	2,154 29	16 66	869 01		6,639 96
" postal station "B"	1,800 00	15 20	24 08	156 72	8 46	2,004 46
" postal station "C"—1109 Queen street west		639 55	264 30	342 62	12 60	1,259 07
" postal station "D"—1675 Dundas street		609 92	232 49	257 04	5 00	1,104 45
" postal station "E" (Jct.)—585 Bloor stret	1,440 00	34 72	41 42	246 60	31 72	1,794 46
" postal station "F"—675 Younge street	60 00	1,433 46	480 33	274 64	31 03	2,279 46
" postal station "G"—754 Queen street east	720 00	4 49	3 92	220 59		949 00
" postal station "H"	300 00	1 30		9 77		311 07
" postal station "K"		520 76	163 54	38 47	15 30	738 07
" steamer inspector office	1,045 00					1,045 00
Trenton post office		496 05	280 75	479 00	73 75	1,329 55
Uxbridge post office		230 64	108 37	38 90		377 91
Walkerton post office, etc		572 73	260 85	213 90	38 60	885 48
Waterloo post office		356 82	106 19	121 36		584 37
Welland post office		601 72	317 03	280 58	30 00	1,229 33
Whitby post office		515 95	197 25	198 54	38 00	949 74
Windsor custom-house					9 45	9 45
" engineer's office	754 25					754 25
" post office, etc	21 00	1,261 30	131 32	503 14	109 24	2,026 00
Wingham post office		249 98	261 90	230 83	23 52	766 23
Woodstock post office, etc		660 98	355 99	294 80	39 20	1,350 97
Total for Ontario	24,341 23	94,099 09	39,115 06	37,869 83	5,285 00	200,710 21

PART II—STATEMENT B—EXPENDITURE—*Continued.*

Name of Building.	Rents.	Salaries and Supplies for Caretakers.	Heating.	Lighting.	Water.	Total.
Manitoba.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Brandon experimental farm			252 79	70 40		323 19
" forestry farm				1 25		1 25
" forestry office	80 00					80 00
" immigration building office			318 23	65 84	20 00	404 07
" post office		1,071 30	732 98	877 28	187 00	2,868 56
Dauphin, Malcolm Block, forestry branch office	16 00					16 00
Dauphin post office, etc	50 00	586 30	779 45	478 27	12 15	1,906 17
Emerson immigration building			127 12			127 12
" post office		549 92	374 20	23 20		947 32
Le Pas post office	300 00					300 00
Minnedosa post office		50 00				50 00
Neepawa post office, etc		800 05	384 94	133 32	8 95	1,327 26
Portage la Prairie armoury and new building		441 82	401 05	102 49	36 35	981 71
Portage la Prairie post office		593 19	369 60	363 90	26 65	1,353 34
Roblin forestry office	412 50					412 50
Selkirk post office		675 55	301 04	85 02	19 00	1,080 41
Souris post office		565 10	600 92	200 45	65 44	1,431 91
St. Boniface post office		685 95	133 30	46 87	30 60	896 72
Swan River immigration building	180 00					180 00
Transcona post office	487 50					487 50
Virden immigration building	250 00		84 50			334 50
Winnipeg Chamber of Commerce, Indian office	4,920 00			1 09		4,921 09
" custom-house (old post office)		5,806 15	1,888 04	323 67	301 21	8,319 07
" engineer's office	802 50					802 50
" examining warehouse		6,339 38	2,259 01	319 18	396 71	9,314 58
" grain exhibit warehouse building		25	37 50	4 62		42 37
" grain warehouse, additional	300 00					300 00
" immigration building office and hospital		1,430 00	4,295 87	779 26	630 63	7,135 70
" Minister's office		43 05				43 05
" post office and new post office	164 15	12,333 62	5,502 77	3,512 76	514 95	22,028 25
" post station "A"	2,050 00					2,050 00
" post station "B"		694 15	119 53	73 84	49 55	937 07
" post station "C"	1,000 00			18 80		1,018 80
" post station "D"	1,248 39	25 00		12 40	4 28	1,290 07
" public building		2,915 00				2,915 00
" railways commissioners office	1,330 00	78 75		15 00		1,423 75
" Union Station mail room	3,020 00					3,020 00
Total for Manitoba	16,611 04	35,684 33	18,962 84	7,509 15	2,303 47	81,070 83
Saskatchewan.						
Alsask immigration building	90 00		5 25			95 25
Battleford Dominion Lands office				234 13		234 13
" immigration building office				35 47		35 47
" post office		669 85	345 34	156 21	25 30	1,196 70
Biggar immigration building			156 95			156 95
Estevan post office (custom-house; examining warehouse; Dominion Lands office; Inland Revenue		577 25	196 24	192 34	46 50	1,012 33
Gravelbourg immigration building			175 12			175 12
post office		85 00	238 31			323 31
Grouard Dominion Lands office			300 00			300 00
Herbert immigration building office	145 00					145 00
Humboldt Dominion Lands office (rented)	1,260 00		97 35			1,357 35
" post office	120 00	646 00	323 77	243 70	2 25	1,335 72

PART II—STATEMENT B—EXPENDITURE—*Continued.*

Name of Building.	Rents.	Salaries and Supplies for Caretakers.	Heating.	Lighting.	Water.	Total.
Saskatchewan—Continued.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Indian Head experimental farm			501 52	200 68		702 20
Indian Head forestry office	300 00		837 30	21 65	110 58	1,269 53
Kerr Robert immigration building	1 00		281 25			282 25
Lloydminster immigration building and office			240 10	55 05		295 15
" public building		39 18	426 45	118 10	10 00	593 73
Macklin immigration building and office	150 00		30 10			180 10
Maple Creek Dominion Lands office			54 00			54 00
" post office		252 02	464 29	173 00	41 00	935 31
Melford post office		551 61				551 61
Melfort public building		10 30	345 90	119 48	9 00	490 68
Moosejaw Dominion Land Office	2,325 00	240 00		135 65		2,700 65
" immigration building and office (rented)			151 30	68 98	43 95	264 23
" Inland Revenue	600 00			4 00		604 00
" post office (custom house and examining warehouse)		1,325 91	2,590 86	1,259 70	99 60	5,276 07
" Railway Mail Services (Russell Block)	1,400 00	150 00		23 48		1,573 48
North Battleford immigration building and office	601 00		275 42	50 58	6 00	933 00
" immigration building and office				10 71	6 00	16 71
" post office		171 22		18 25	154 55	344 02
North Portal immigration building	1 00		68 45			69 45
Prince Albert Forestry branch office, Baker building	800 00	80 80	8 00			888 80
Prince Albert engineer's office	150 00					150 00
" immigration shed and office	120 00			21 72	5 10	146 82
" post office		1,884 42	696 26	1,308 84	110 65	4,000 17
Regina Customs Express (rent) (E. Forest building)	3,000 00			17,49		3,017 49
" Dominion Land office, registry office		1,220 55	547 75	215 59	60 00	2,043 89
" immigration building			279 50	121 18	32 40	433 08
" public building (custom house examining warehouse, Inland Revenue, Public Works, Agriculture Department)	52 50	2,705 50	1,343 41	3,193 34	211 58	7,506 33
Rosthern Experimental Farm			295 40			295 40
Saskatoon custom house (Temp. 3rd Ave.)				10 44	5 05	15 49
" custom express office (old Dominion Lands office, 3rd Ave.)	1,800 00				3 00	1,803 00
" custom house and post office, 1st Ave				280 73		280 73
" custom house, 2nd Ave. and 23rd St	3,000 00			5 70		3,005 70
" Dominion Land office	1,800 00			5 34		1,805 34
" Forestry Nursery station			191 00			191 00
" immigration shed and office			225 15	49 83	32 50	307 48
" Inland Revenue, weights and measures	2,250 00					2,250 00
" post office		1,778 22	1,054 38	1,399 05	136 19	4,367 84
Scott Experimental Farm			187 95	5 48		193 43
Swift Current Dominion Lands office	2,625 00					2,625 00
" post office	1,800 00		105 10	234 10		2,139 20
Tisdale immigration building			223 37			223 37
Unity immigration building			65 00			65 00

PART II—STATEMENT B—EXPENDITURE—*Continued.*

Name of Building.	Rents.	Salaries and Supplies for Caretakers.	Heating.	Lighting.	Water.	Total.
Alberta—Concluded.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Wadena immigration building office and hall			130 20	22 40		152 60
Wilkie immigration building office	1 00		159 70			160 70
Weyburn custom house and public building		486 30	473 10	213 08	43 00	1,215 48
Yonker immigration building		583 65	1,321 22	1,162 60	74 50	3,141 97
Total for Saskatchewan	24,391 50	13,463 78	15,416 76	11,388 07	1,268 70	65,928 81
Alberta.						
Athabaska Landing immigration building			115 14			115 14
Calgary Agriculture Department, seed branch	255 00					255 00
" Blow Building, 8th Ave., irrigation office				19 85		19 85
" Costello Building, weights and measures office	390 00					390 00
" customs house (old post office)		414 40	1,054 58	1,423 08	300 00	3,192 06
" custom house (see Dominion Bank building)				27 30		27 30
" custom house (see Westminster building)				7 70		7 70
" examining warehouse	6,500 00			206 56		6,706 56
" Forestry rangers (see Thomas building)	1,170 00					1,170 00
" gas and electric inspector (see Cadogen building)	385 00			3 60		388 60
" grain branch (see Armstrong building)	450 00					450 00
" immigration building, hall and office	10 00		233 67	34 99	61 00	342 66
" Leeson and Lineham block: Cust.	965 00	4 75	92 70			1,062 45
" post office		3,046 48	113 98	480 15		3,640 61
" post office, temporary	10,208 33	425 50	491 48	1,229 87	86 00	12,441 18
" railway commissioners (see Bonner building	1,000 00	89 75		10 05		1,099 80
" railway mail service		16 00		10 25		36 25
Castor immigration building and office			76 02			76 02
Edmonton Dominion Land and Registry office	8,551 00	374 00		303 89		9,228 89
" examining warehouse (rented)	2,541 00					2,541 00
" immigration shed, hospital and office			543 40	173 84	189 63	906 87
" Inland Revenue Weights and Measures (rented)	405 00					405 00
" post office, department public works, clerk of works, custom house, examining office, Interior department	55 73	6,372 78	1,242 02	2,642 90	156 28	10,469 71
Edson immigration building			68 90			68 90
Entwistle immigration building and office			67 50			67 50
Grand Prairie Dominion Land office	240 00					240 00
Grouard Dominion Land office	210 00					210 00
" immigration hall	320 00					320 00
Irvine immigration hall	120 00					120 00
Lacombe experimental farm			337 91	149 54		487 45

PART II—STATEMENT B—EXPENDITURE—*Continued.*

Name of Building.	Rents.	Salaries and Supplies for Caretakers.	Heating.	Lighting.	Water.	Total.
Alberta—Continued.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Lethbridge custom house and clearing house, Dominion Land office		76 35	222 80	140 08	100 00	529 23
" experimental farm			139 05	4 50		143 55
" Hull block—Inland Revenue	750 00	30 00		12 20		792 20
" immigration building			201 60	103 98	100 00	405 58
" post office (rented)	3,900 00	550 00	24 15	17 15		4,491 30
" Public Works office				75		75
McLeod custom house			189 10	18 69	19 00	226 79
Medicine Hat, Dominion Land office				2 48		2 48
" " custom express	150 00					150 00
" " immigration building	300 00	1 20				301 20
" " gas inspector	60 00					60 00
" " post office		1,254 95	109 90	181 09	39 45	1,585 39
Pincher Creek forestry office	480 00					480 00
Red Deer custom house, Dominion Land office, public building		795 25	352 50	70 35	39 00	1,257 10
Rocky Mountain Park Supt. Office	75 00					75 00
Sedgwick immigration building and office	100 00					100 00
Strathcona immigration building and hospital			90 71	28 11	25 85	144 67
Strathcona public building		1,136 50	404 57	198 06	31 79	1,770 92
Vegreville immigration building	300 00					300 00
Vermilion immigration building	1 00					1 00
" public building			37 68			37 68
Viking immigration building			44 25			44 25
Wainwright immigration building and office			88 42			88 42
Wetaskiwin public building		675 35	464 37	217 08	31 94	1,388 74
Total for Alberta	39,892 06	15,263 26	6,713 70	7,810 79	1,182 94	70,862 75
British Columbia.						
Agassiz Experimental Farm			467 86			467 86
Atlin post office		150 00	85 00			235 00
Burrard inlet immigration building	100 00					100 00
Chase engineer's office			49 20			49 20
Chilliwack public building		665 01	522 10	69 95	36 00	1,293 06
Comox public building		68 45	133 00	17 35		218 80
Cranbrook public building		928 00	419 05	553 44	54 87	1,955 36
Cumberland post office		672 29	86 50	275 00	60 00	1,093 79
Fernie post office		904 25	211 50	202 35	58 50	1,376 60
Grand Forks post office		397 00	522 28	57 90	15 00	992 18
Kamloops post office		810 65	622 25	480 15	24 00	1,937 05
Ladysmith post office		617 98	91 50	78 99	30 00	818 47
Nanaimo post office, etc		1,612 63	458 50	828 12	36 00	2,835 25
Nelson post office		733 31	397 85	819 60	90 00	2,040 76
New Westminster Indian and Fisheries		633 20	136 00	63 18	40 84	873 22
" post office		911 42	669 10	666 36	75 90	2,322 78
Prince Rupert post office	6,525 00			620 31	41 40	7,186 71
Rossland post office, etc		611 65	673 00	721 31	75 45	2,081 41
Revelstoke custom-house, Crown timber and engineer's office	600 00					600 00
Revelstoke engineer's office	750 00					750 00
Union Bay post office			44 00	33 13		77 13
Vancouver Chinese detention hospital	275 00		60 47	56 85		392 32
" custom express office			16 00			16 00
" fruit inspector's office	100 00					100 00
" examining warehouse	3,080 35	1,301 31	239 56	26 57	10 40	4,658 19
" new examining warehouse		191 10	385 86	105 98		682 94

PART II—STATEMENT B—EXPENDITURE—*Concluded.*

Name of Building.	Rents.	Salaries and Supplies for Caretakers.	Heating.	Lighting.	Water.	Total.
British Columbia—Concluded.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Vancouver post office and new post office	188 00	12,470 68	3,099 94	4,342 33	293 68	20,394 63
" post office, old		43 70	773 30	220 76	71 56	1,109 32
" post office, north	600 00	703 63	174 25	244 25	9 60	1,731 73
" post office, east				38 00		38 00
" postal station 'B'	5,392 50	50 43	264 98	112 26	34 60	5,854 77
" postal station 'C'	1,050 00	1,400 48		83 59		2,534 07
Vernon post office		886 30	391 35	391 06	41 25	1,709 96
Victoria, Ames-Holden building, examining warehouse	7,500 00	259 50	66 00	135 52	9 35	7,970 37
Victoria custom-house			30 00	2 40		32 40
" engineer's office	1,120 00			55		1,120 55
" examining warehouse, temporary		47 60	45 35	60 83	8 45	162 23
" immigrant detention hospital			846 00	332 65	115 70	1,294 35
" irrigation plant	7 50					7 50
" Marine and Fisheries office, old custom-house		751 55	276 00	185 05	23 20	1,235 80
" post office	126 00	7,760 75	1,659 90	2,535 59	104 15	12,186 39
" post office, old		282 20	20 00	87 25	106 55	496 00
" caretaker's quarters			48 00	11 35	10 30	69 65
White Rock immigration office or Pacific highways			36 40			36 40
William Head quarantine station	10 00		4,455 01			4,465 01
Total for British Columbia	27,325 35	35,765 07	18,477 06	14,459 98	1,476 75	97,504 21

PART II.—STATEMENT C.—Showing the amounts loaned by Government under the authority of special Acts of Parliament, and upon the security of debentures of the borrowing corporation. The work upon which these funds are expended are of a quasi-public nature, and the several advances have been made upon the recommendation of the Honourable the Minister of Public Works, and after inspection by the chief engineer.

To whom loaned	Parliamentary Authority.	Purpose.	Amount.
Nil			

PART III

REPORT

ON

PUBLIC BUILDINGS THROUGHOUT THE DOMINION

FOR THE FISCAL YEAR ENDED MARCH 31, 1914.

BY THE

CHIEF ARCHITECT

PUBLIC WORKS, CANADA,
CHIEF ARCHITECT'S OFFICE,
OTTAWA, December 28, 1914.

R. C. DESROCHERS, Secretary,
Department of Public Works.

SIR,—I am sending you herewith annual report of works executed under this branch during the fiscal year ended March 31, 1914.

D. EWART,
Chief Architect.

PROVINCE OF NOVA SCOTIA.

AMHERST.

DRILL HALL.

On January 8, 1914, a contract was entered into for the construction of this building, on the east side of Acadia street and the north side of Agnew. The building measures 177 feet long by 85 feet broad, has a one-story main hall 102 by 80 feet midway of its length, having galleries at both ends. The ends are similar in size and two stories in height, that fronting on Acadia street having two four-story stone towers and being faced with stone; the remaining walls are of brick, with stone dressings. In the basement, at the rear end, there are shooting galleries, and in both ends there are furnace and fuel rooms; on the ground floor there are ten armouries, and on the first floor are officers', sergeants', and men's quarters.

Plans prepared by this department.

Contractors—Rhodes, Curry & Co.

ANNAPOLIS ROYAL.

PUBLIC BUILDING.

Caretaker's apartments were papered and painted. All exterior wood and metal works were painted. Brick and stone work pointed; letter box screen in lobby altered, adding larger letter box in bottom row.

Work supervised by W. Bishop, Inspector Dominion Buildings, Nova Scotia.

BRIDGEWATER.

PUBLIC BUILDING.

Repairs to copper work on tower; joints of stone in walls of parapet and back walls of tower pointed with cement; clock weights incased in planks and sawdust to prevent falling.

Work supervised by W. Bishop, Inspector Dominion Buildings, Nova Scotia.

CANSO.

PUBLIC BUILDING.

Storm porch at mail entrance erected to the working apartments of the post office; minor repairs to window frames, replacing and pointing bricks and fixing leaks in roof of clock tower, etc.

Work supervised by W. Bishop, Inspector Dominion Buildings, Nova Scotia.

DARTMOUTH.

DOMINION BUILDING.

Painted woodwork, inside walls kalsomined, and ceilings whitewashed; electric lighting repaired and new lamps furnished.

Work supervised by W. Bishop, Inspector Dominion Buildings, Nova Scotia.

DIGBY.

DOMINION BUILDING.

Window frames were pointed with cement; springs attached to doors and other minor repairs. Walls of clock tower pointed to stop leaking; inside clock tower plastered throughout; fire-proofing safe doors, making good the defects.

Work supervised by W. Bishop, Inspector Dominion Buildings, Nova Scotia.

GUYSBOROUGH.

DOMINION BUILDING.

Woodwork and walls of interior painted and whitewashed; exterior ironwork painted and other necessary repairs done; water pipes to new well connected to tank in top of the building, eliminating the pumping. Two new furnaces were installed.

Work supervised by W. Bishop, Inspector Dominion Buildings, Nova Scotia.

HALIFAX.

CUSTOM-HOUSE.

Post Office Inspector's apartments were painted, and ceilings whitened; partition removed to make larger work room. Two offices were cleaned up and painted for inspector of customs; three other rooms were painted for the staff. Two rooms were fitted up for the gaugers, with plumbing, carpenter work, and painting. New screens were placed on counters in long room and minor repairs were made to cover of clock tower with new copper. Bottom of columns of appraiser's apartments were surrounded with sheet iron 4 feet high.

Work supervised by W. Bishop, Inspector Dominion Buildings, Nova Scotia.

DETENTION HOSPITAL.

Broken glass was replaced, and inside woodwork painted and ceilings whitewashed; all outside wood and iron painted; wire caging of verandah was repaired; two new hot water furnaces were installed.

Work supervised by W. Bishop, Inspector Dominion Buildings, Nova Scotia.

QUARANTINE STATION—LAWLOR'S ISLAND.

Fitted up a small room in first-class hospital, with bath and W.C. for use of nurses; minor repairs to smoke pipe of furnace; new low-down tanks were installed to replace condemned ones; a few repairs to plumbing, ordered by inspecting doctor.

Work supervised by W. Bishop, Inspector Dominion Buildings, Nova Scotia.

INVERNESS.

PUBLIC BUILDING.

New sewer from this building was laid to the pond; new storm doors provided for entrances to Post Office and Customs Departments.

Work supervised by W. Bishop, Inspector Dominion Buildings, Nova Scotia.

KENTVILLE.

PUBLIC BUILDING.

Installed new 4-dial clock in tower, same lighted by electricity; larger drawers were made to letter box screen.

Work supervised by W. Bishop, Inspector Dominion Buildings, Nova Scotia.

LIVERPOOL.

PUBLIC BUILDING.

Interior was painted and kalsomined and ceilings whitened; necessary repairs to exterior woodwork was made, also painted; springs put on outside of post office doors; minor plumbing work done.

Work supervised by W. Bishop, Inspector Dominion Buildings, Nova Scotia.

LUNENBURG.

PUBLIC BUILDING.

New counters were provided for shipping and fisheries offices, exterior brick walls repaired; wall plates and roof rafters defective were replaced by new; new water gutter of galvanized iron was provided and a new fence was erected inclosing the lot, and other minor necessary repairs done.

Work supervised by W. Bishop, Inspector Dominion Buildings, Nova Scotia.

NEW GLASGOW.

PUBLIC BUILDING.

Added a new section to letter box screen in lobby.

Work supervised by W. Bishop, Inspector Dominion Buildings, Nova Scotia.

NORTH SYDNEY.

IMMIGRATION OFFICES.

New windows were put into ceiling of agents' office, also in doctor's office, same are hinged and provided with pullies to be opened for ventilation. All apartments were painted in three coats; glass repaired; linoleum provided for doctor's and agent's office, also minor repairs to woodwork.

Work supervised by W. Bishop, Inspector Dominion Buildings, Nova Scotia.

PUBLIC BUILDING.

Two new furnaces were installed and minor repairs to plumbing and carpenter work done.

Work supervised by W. Bishop, Inspector Dominion Buildings, Nova Scotia.

PICTOU.

PUBLIC BUILDING.

New hardwood floor laid in lobby; new conductor pipe for rain water from gutters put up. Hot-water furnaces repaired and other minor work done.

Work supervised by W. Bishop, Inspector Dominion Buildings, Nova Scotia.

CUSTOM-HOUSE.

Woodwork of interior painted; floors oiled and ceilings whitened and generally cleaned; slate roof and other outside work repaired.

Work supervised by W. Bishop, Inspector Dominion Buildings, Nova Scotia.

PARRSBORO.

PUBLIC BUILDING.

This building, which was described in a previous report, is completed.

Plans, etc., prepared by this department.

Clerk of works, J. M. Gillespie.

Contractors, Falconer and McDonald.

SHELBURNE.

DOMINION BUILDING.

New galvanized iron roof was put on, same painted; plumbing work in clock tower also done.

Work supervised by W. Bishop, Inspector Dominion Buildings, Nova Scotia.

SYDNEY.

DOMINION BUILDING.

Woodwork and walls of interior painted, etc. Exterior woodwork painted; brickwork repaired; new lead cover put on roof of clock tower and plumbing work repaired; new hardwood floor in post office and some furniture repaired.

Work supervised by W. Bishop, Inspector Dominion Buildings, Nova Scotia.

SYDNEY MINES.

PUBLIC BUILDING.

Roof newly covered with tar and gravel; chimney taken down and rebuilt and soft brick replaced by hard; plumbing has been repaired; interior has been painted and the ceilings whitened; outside metal work painted and minor repairs made.

Work supervised by W. Bishop, Inspector Dominion Buildings, Nova Scotia.

SPRINGHILL.

DOMINION BUILDING.

New roof put on the examining warehouse; minor repairs to plumbing in roof and clock tower repaired.

Work supervised by W. Bishop, Inspector Dominion Buildings, Nova Scotia.

TRURO.

PUBLIC BUILDING.

New board fence to inclose the grounds of building. Brick piers built under wooden platform in rear and other repairs done.

Work supervised by W. Bishop, Inspector Dominion Buildings, Nova Scotia.

WINDSOR.

PUBLIC BUILDING.

Caretaker's quarters were painted, walls kalsomined; brick wall piereed for window between vestibule and hall to light stairs leading up to Customs Department. Four-dial clock installed in tower and lighted with electricity.

Work supervised by W. Bishop, Inspector Dominion Buildings, Nova Scotia.

WOLFVILLE.

PUBLIC BUILDING.

This building, which was described in a previous report, is completed.
Plans, etc., prepared by this department.
Clerk of works, Clarence H. Borden.
Contractor, A. Hood.

YARMOUTH

PUBLIC BUILDING.

All the interior of this place was painted, kalsomined and whitened; plastering repaired and some repairs to the plumbing; drain was opened to clear passages; erected gate in rear of building to shut off the grounds.

Work supervised by W. Bishop, Inspector Dominion Buildings, Nova Scotia.

PROVINCE OF NEW BRUNSWICK.

CHATHAM.

QUARANTINE STATION.

Steward's house raised, additional slips built; cellar walls concreted; new hot-water furnace installed.

Work supervised by D. H. Waterbury, Superintendent of Public Buildings, New Brunswick.

ARMOURY.

Report made *re* laying concrete walks.

PUBLIC BUILDING.

Old sewer covered with lumber and report made *re* new concrete culvert.

Work supervised by D. H. Waterbury, Superintendent of Public Buildings, New Brunswick.

DALHOUSIE.

PUBLIC BUILDING.

Kalsomining and painting in post office and lobby; repairs were made to clock. Basement concrete floor renewed, new letter boxes installed and repairs made to gutters and pipes.

Work supervised by D. H. Waterbury, Superintendent of Public Buildings, New Brunswick.

FAIRVILLE.

PUBLIC BUILDING.

Sorting frames and chairs supplied; shelf provided for money order office: concrete sidewalks laid on front of building; floors coated.

Work supervised by D. H. Waterbury, Superintendent of Public Buildings, New Brunswick.

FREDERICTON.

PUBLIC BUILDING.

On 16th April, 1913, a contract was entered into for the construction of this building, which is two story and basement of stone, measuring 80 feet frontage by 81 feet in depth, surmounted in middle of frontage by a clock tower 20 feet square, rising four stories above roof and to 100 feet from ground level; midway of the rear on the first floor is an open court 16 feet in width by 43 feet in depth. The outer walls are cut stone, the basement partitions brick, the remaining partitions iron and plaster; the general construction of floors, piers, etc., iron and concrete; the safe rooms of brick; stairs of iron; the floor covering in public lobby and toilet terrazza with marble borders in the former, and the floor covering in general of wood.

The basement is for furnace room, fuel room and storage; the ground floor, post office, brick safe, toilet room, mail lobby and stairways, and the first floor, five offices with two toilet rooms and five caretaker's rooms with a bath room.

The heating is by hot water and the lighting by electricity.

Plans, etc., prepared by this department.

Clerk of works—Alexander C. Fleming.

Contractors—Falconer & Macdonald.

PUBLIC BUILDING.

Street letter boxes and parcel receptacles painted.

Work supervised by D. H. Waterbury, Superintendent of Public Buildings, New Brunswick.

IMMIGRATION OFFICE.

Heating pipes were covered with asbestos.

Work supervised by D. H. Waterbury, Superintendent of Public Buildings, New Brunswick.

BATHURST.

PUBLIC BUILDING.

New doorway cut through to annex; new floor laid in annex, shelving, etc., placed; wash basin installed and plumbing repairs made. Repairs to safe, furniture, plaster, etc. Tungsten lamps supplied. Work supervised by D. H. Waterbury, Superintendent of Public Buildings, New Brunswick.

CAMPBELLTON.

PUBLIC BUILDING.

Fence painted, tower clock supplied and contract made for installing same. Lot fenced; broken dial glasses repaired; bell tower and shaft for weights made, wire fence with cedar posts made and secured; grading done.

Work supervised by D. H. Waterbury, Superintendent of Public Buildings, New Brunswick.

GRAND FALLS.

PUBLIC BUILDING.

Coal supplied; concrete retaining wall and sidewalks made; turret clock supplied and installed; furniture and electric lights supplied; wire cable for tower clock supplied; repairs made to electric light in basement: staging erected and bell raised to roof; hood for bell and weight chase constructed.

Work supervised by D. H. Waterbury, Superintendent of Public Buildings, New Brunswick.

HAMPTON.

PUBLIC BUILDING.

On June 6, 1913, a contract was entered into for the construction of this building which has two stories of brick with stone dressings and on a stone basement, measuring 40 feet square on plan, exclusive of four feet of projection of a four-story and basement, 12 feet square, which is situated in right anterior angle of the building. The partitions in basement are brick and the floor of cement, but the remaining partitions and floors, the stairs and the roof are of wood.

The basement contains the furnace room, fuel room and storage rooms; the ground floor, the post office, mail entrance, two vestibules, a toilet room and stairways and the first floor, five rooms and room for the caretaker.

Heating is by hot water, and lighting by electricity.

The plans and specification prepared and work supervised by Henry H. Mott, architect, St. John, N.B.

Contractors—British American Construction Co., New Brunswick.

HARTLAND.

PUBLIC BUILDING.

Additions made to piping and gas jets in tower for clock illumination.

Work supervised by D. H. Waterbury, Superintendent of Public Buildings, New Brunswick.

HILLSBORO.

PUBLIC BUILDING.

Street letter receiver enlarged; repairs made to hot air engine; gas mantles supplied and repairs made to air tank, scupper holes made in concrete platform.

Work supervised by D. H. Waterbury, Superintendent of Public Buildings, New Brunswick.

MONCTON.

PUBLIC BUILDING.

Street letter boxes and parcel receptacles were painted; repairs were made to stone steps; repairs and improvements and additions made to plumbing; two w.c.'s constructed in basement; closet room painted, repairs made to basement stairs; roof repaired, concrete walk and gutter laid front and side of building; two trucks were supplied.

Work supervised by D. H. Waterbury, Superintendent of Public Buildings, New Brunswick.

NEWCASTLE.

PUBLIC BUILDING.

Clock tower and bell hood constructed and tower clock supplied, flag mast erected and repairs made to electric lights and tungsten lamps supplied.

Work supervised by D. H. Waterbury, Superintendent of Public Buildings, New Brunswick.

ST. JOHN.

ARMOURY.

This building, which was described in a previous report, is still under construction.
Plans, etc., prepared by this department.
Contractor, Michael Sullivan.
Architect in charge, A. H. Mott.
Clerk of works, Neil Brodie.

NEW POST OFFICE.

The construction of this building, which was described in my last year's report, is still in progress.

Plans, etc., prepared by this department.
Resident architect, C. E. Fairweather.
Contractors, Rhodes, Curry & Co.

CUSTOM-HOUSE.

Electric bells, batteries, telephones, etc., kept in order; copper roof repaired, linen fire-hose renewed; removal of gas mantles and argand burners; articles of furniture repaired and renewed, and office furniture supplied. The mason work inclosing windows repaired in basement; door springs and checks supplied; intercommunicating telephones and wires repaired; repairs made to plumbing and heating pipes and radiators; gas piping improved and extended; water pipes repaired, electric light wiring and conduit system in south wing and some extension in centre; sundry repairs to wiring and lights; alterations made in fittings, screens, counters, fixtures, etc., in Customs, also for Inland Revenue and Customs; masonry of entire building pointed, glazing done, kalsomining and painting done in sundry offices and apartment rooms; woodwork of windows repaired, sash cords repaired. Passenger elevator installed; hydraulic hoist repaired; clocks repaired; halyards and flags renewed; filing cabinets supplied Inland Revenue Department. Repairs made to concrete base in express room; new handle placed on vault door in Customs.

Work supervised by D. H. Waterbury, Superintendent of Public Buildings, New Brunswick.

POST OFFICE.

Engineer's and caretaker's implements supplied; extensive repairs to hoist. Linoleum supplied to post office inspector's office. Lamps, window, brush and mirror supplied. Revolving door inclosure stained and varnished; repairs to gas and electric light; repairs made to plumbing; repairs to furnace; new grates, repairs to desk and chairs, window shades supplied to post office inspector's office; soap supplied, repairs made to intercommunicating telephone and speaking tubes.

Concrete floor laid in basement; entire masonry of building pointed. Compartment and shelves made for distribution of stores; signal halyards supplied; filing cabinet and office stools supplied postmaster's office: doors, locks and keys repaired and new locks supplied for drawers; glazing and sundry small repairs made; batteries supplied, staging erected and repairs made to copper roof; windows re-corded; trucks repainted, lettered and varnished, some repaired; money till supplied in registration office and repairs made to drawer and lock; three new trucks supplied. Mezzanine floor built, new lock placed on door, rope for hoist; repairs made to partition; linoleum supplied postmaster's office; extensions made to speaking tube and new whistles supplied; clock repaired, filing cabinet supplied post office inspector's office. Electric light globe at entrance lettered. Ceilings, cornice, etc., whitened, walls painted in delivery; cabinet and wardrobe made and supplied postmaster's office. Additional electric wiring done, two portable electric lamps supplied, cabinet for postal notes supplied. Tower clock attended to; one special birch cabinet.

SAVINGS BANK.

Had attention given sanitary matters; repairs and supplies, glazing, gas lighting. Repairs to heating apparatus; masonry of building pointed; rubber gaskets, dry batteries supplied; repairs made to plumbing and tank; caretaker and firemen's stores supplied, fuel, etc.

Work supervised by D. H. Waterbury, Superintendent of Public Buildings, New Brunswick.

MARINE AND FISHERIES DEPARTMENT.

Office furniture was supplied for fish breeding branch; furniture moved from customs-house with office for the department, in the Canadian Bank of Commerce building. Desk, chairs and table supplied.

Work supervised by D. H. Waterbury, Superintendent of Public Buildings, New Brunswick.

ST JOHN WEST.

MARTELLE DETENTION HOSPITAL.

Furniture hauled from Martelle building and stored. Building now vacant and watchman employed on it.

Work supervised by D. H. Waterbury, Superintendent of Public Buildings, New Brunswick.

ST. JOHN WEST.

POST OFFICE.

Small sundries in repairs done; tower clock had attention; electric lighting supplies, fuel and water supplied.

IMMIGRATION BUILDING.

Window screens repaired and put on. Engineer's stores supplied, floor oil supplied; new fire room constructed; interior and exterior of building painted and some kalsomining. Two new boilers installed on concrete floor; repairs were made to sewer and platform. Woodwork repaired; eaves of roof repaired, electric lighting overhauled and repaired, new switches and tungsten lamps supplied. New sills made, repairs made to floor and wall tiling. Refrigerator supplied, iron beds moved, window shades supplied, repairs made to plumbing, new copper-lined cistern installed; glazing done, repairs made to plaster, new partition painted. New grate bars supplied for furnace

for No. 4 building; new kitchen sink supplied. New hot-water boiler and fittings installed in matrons' department; stove pipes renewed. Iron balconies and steps for fire escapes placed around buildings and window gratings hinged.

QUARANTINE STATION, PARTRIDGE ISLAND.

New buildings completed for bacteriologist, boatman and assistant caretaker and laboratory. Excavation made and pipes laid for sewers and water supply; cisterns built in buildings; ranges supplied to bacteriologist, caretaker and boatman; stove pipes and joints supplied; window shades supplied; tank cover and shelving supplied. Doorway made in basement; concrete wall, plank walks placed at doctor's residence; shelving placed, concrete platform, door, cabinet, porch, etc., in laboratory. Heating apparatus placed in bacteriologist's residence. Nails and shingles supplied; sewer at steward's house extended; connections with kitchen repaired and renewed. Cistern at bacteriologist's residence enlarged; repairs to roof of resident doctor's house. Wall paper supplied, heating and plumbing and gas fitting done in laboratory.

Work supervised by D. H. Waterbury, Superintendent of Public Buildings, New Brunswick.

RICHIBUCTO.

PUBLIC BUILDING.

Tungsten lamps supplied; well bored and pump attached.

Work supervised by D. H. Waterbury, Superintendent of Public Buildings, New Brunswick.

ST. STEPHENS.

PUBLIC BUILDING.

Repairs made to plumbing and sundry small works; repairs made to lavatory in basement; rooms papered, ceilings whitened; repairs made to plaster in caretaker's apartment. Carpenter work done.

Work supervised by D. H. Waterbury, Superintendent of Public Buildings, New Brunswick.

SUSSEX.

PUBLIC BUILDING.

Caretaker's quarters were painted and papered; ceilings repaired and kalsomined; heating coils bronzed; stair rail cleaned off and varnished. New letter boxes were installed, Yale locks and hinged shelf were supplied to post office; flooring laid in pantry, sheathing done around stairs; new locks supplied and repairs made to spring hinges, chair supplied customs; two 5-cluster lamp post supplied for lawn in front of building.

Work supervised by D. H. Waterbury, Superintendent of Public Buildings, New Brunswick.

TRACADIE.

DOCTOR'S RESIDENCE.

Furniture supplied, sidewalks and doorway bridge constructed; fence supplied and fitted, drain filled in and new one dug; pump and fittings attached to well; small building for barn was bought.

Work supervised by D. H. Waterbury, Superintendent of Public Buildings, New Brunswick.

WOODSTOCK.

PUBLIC BUILDING.

Repairs were made to block and halyards of flagmast; railway mail truck was painted and wheel of same had rubber tires put on. Repairs were made to plaster; improvements were made to heating apparatus; repairs to plumbing and skylight, glazing done.

Work supervised by D. H. Waterbury, Superintendent of Public Buildings, New Brunswick.

PRINCE EDWARD ISLAND.

CHARLOTTETOWN.

POST OFFICE.

Furniture of post office inspector repaired. Mail trucks repaired for post office. Fire irons repaired; wire bound rubber hose supplied. Furnace repaired, boilers repaired, lined with fire bricks, etc., post office inspector's staff supplied with quartered oak flat top desk and one oak revolving chair. Post office rooms whitewashed, papered, etc., painted rooms of caretaker's quarters. New doors placed for exit to roof with glass in. One oak typewriting desk and chair supplied, plaster patched on ceiling in corridor of Dominion building, also of weights and measures office.

New hardwood flooring laid in Customs Department and caretaker's quarters. The whole basement floor laid with concrete, roof repaired and heavy wired glass installed in skylights, making extensive repairs to gutters, etc. New oak typewriter desk and chair for collector of customs' office; large case of shelving made for P. O. Department; small new case also made.

Work supervised by J. J. McDuff, Superintendent Dominion Buildings, Prince Edward Island.

OLD BANK BUILDING.

Awnings placed on windows of Marine office; glass put in door; painting old bank building; copper roof thoroughly repaired; repaired old building throughout according to plans and specifications. New radiator placed in appraiser's office; making all connections, etc., sundry other repairs to appraiser's office.

Work supervised by J. J. McDuff, Superintendent Dominion Buildings, Prince Edward Island.

GEORGETOWN.

POST OFFICE.

Walls of post office lobby kalsomined in working space; painting, oiling and varnishing woodwork of floors was done, also in Customs Department, painting all woodwork on exterior of building and fence. Chimney was repaired, closet supplied and installed, lumber and making box for outlet to sewer; sewer pipe furnished and laid; plumbing, radiator, valve keys, etc.

Work supervised by J. J. McDuff, Superintendent Dominion Buildings, Prince Edward Island.

MONTAGUE.

POST OFFICE.

Collector of customs furnished with one standing oak desk; two oak revolving office chairs, two office chairs to match interior changes according to plans and specifications.

Work supervised by J. J. McDuff, Superintendent Dominion Buildings, Prince Edward Island.

SOURIS.

POST OFFICE.

One sorting table, waste paper baskets, supplied. Walls, ceilings and woodwork of public building whitened; kalsomining and varnishing; exterior woodwork painted, flag staff, fire escape, twenty-three window screens and two doors furnished; painting and glazing twenty-four storm windows and sundry panels; hardware supplied.

Work supervised by J. J. McDuff, Superintendent Dominion Buildings, Prince Edward Island.

SUMMERSIDE.

POST OFFICE.

Repairs to building, etc., staging erected and taken down. Mortar, bricks, cement, etc., supplied; repairs to outside of building, south side, not in other contract; gutter, front gable, repairing brickwork, setting stone steps, painting, etc. Some letter boxes repainted, cleaning off old wall paper, patching plaster, kalsomining walls of caretaker's quarters, fumigating, etc.

Work supervised by J. J. McDuff, Superintendent Dominion Buildings, Prince Edward Island.

TIGNISH.

PUBLIC BUILDING.

Hot-air engine repaired and pieces supplied; wind guards supplied for smoke chimney; copper ventilator installed; leaking roof repaired; touching up windows and doors to make same satisfactory; overhaulding hot-air pumping engine; staging erected around chimney. One double brass cylinder hand air pump supplied, electrical fixtures changed; repairing hot-air engine; set grate bars for hot-water boiler. Loads of clay placed around building. Street porch and side entrance built per contract. One eight-day clock, sundry supplies for hot-air engine. Tower clock purchased and installed in tower. Additional tile put in post office. Leather couch supplied postmaster, quartered oak office table, two lock drawers for collector of customs. Electric light plant furnished and installed and storage battery, electric lamps furnished throughout. Duck covers for machinery and drill for curtains of storage plant. One bag rack of 100 bags for Post Office Department.

Work supervised by D. H. Waterbury, Superintendent of Public Buildings, New Brunswick.

PROVINCE OF QUEBEC.

GROSSE ISLE.

QUARANTINE STATION.—GENERAL REPAIRS.

Roman Catholic Chaplain's House.—The house which had the following dimensions, 36 by 28 feet, was practically all rebuilt. The roof was raised 10 feet in order to put on another story. A new verandah was built around the house, 6 feet in width, with concrete columns; three rooms were made in the second story, with timber partitions. The house was made of wood covered with shingle, and electric wiring placed all through; it was painted inside and outside.

Baker's House.—A new addition was built to the house, which had the following dimensions: 24 by 16 feet, with two stories and flat roof, covered with paper, also

verandah, 6 feet in width by 20 feet long; three partitions were made on the second story; it was wired for electricity and painted throughout.

Doctor's Laundry.—The dimensions were 20 by 14 feet, one story high, with flat roof, covered with tar paper; outside finished with clapboards, and there are two partitions, brick chimney, concrete foundations. The laundry was provided with wash tubs and drains, also electric wiring and painted throughout.

Superintendent's Green House.—The dimensions are 30 by 16 feet, the foundations built of concrete 9 feet high and filled level to top with earth; the roof was made of plate glass and walls of double glass; tables and benches were provided.

Superintendent's residence was also painted and parlour papered and water pipe, from main to house, was laid.

Police Sergeant's Quarters.—The dimensions are 30 by 18 feet; had been planned to repair the house, but found it so rotten that a new house was built of two stories with an annex for kitchen 18 by 18 feet, one story high, all built of wood with a shingle roofing; inside partitions made of Beaver board and painted three coats; a cellar had to be blasted from the rock under kitchen; it was wired throughout for electricity.

Interpreter's House.—A new addition was built of wood, two stories high, with flat roof covered with paper; two partitions were made in each flat, a shed for wood 14 by 14 feet was built, shingled and both buildings painted throughout.

Ambulance House.—The house was removed 275 feet south of the general road; general repairs were made and painted.

Protestant Parsonage.—General minor repairs and painting done; two new doors supplied.

Western End Stable.—A new stable 30 by 34 feet was built with concrete foundations, all built of wood and shingled.

Eastern Disinfecting Building and Laundry.—A U-shaped extension was built to the disinfecting building 20 by 16 by 35 feet, on concrete foundation, to provide accommodation for disinfection, and also for a new steam laundry built of wood and covered with galvanized iron, one story high, painted and wired for electricity throughout.

Eastern End Stable.—A new stable was built about 400 feet from the hospital, size 30 by 24 feet, with wooden foundation and shingle roof.

Western Wash House.—General repairs were made to this building; new windows and doors were placed; the whole building clapboarded; new brick chimney built and 60 feet of new flooring laid; new foundation has to be built, this work is not yet completed.

Superintendent's Stable.—Stable and barn were all clapboarded and painted.

Department of Public Works Boarding House.—General repairs were made, such as the clapboarding on the length of 206 by 24 feet, a verandah made the full length, the windows and doors repaired and a coat of priming paint put on.

A new wire fence was put along the public road 1,200 feet long, removing the old one; cedar posts placed every 8 feet.

A concrete walk was built for a length of 1,450 feet by 4 feet by 8 inches thick, the whole length had a tile pipe placed to prevent it from being damaged by water or ice. In some places stone substructure was built as high as 30 inches.

Underground Water Works.—The water pipes placed underground 1,500 feet from the eastern wharf pump-house to the hospital, the excavation being made through shale and rock 4 feet deep; 6-inch cast-iron sewer pipe was placed in the same excavation, from the proposed new hospital to the old one, connecting all the houses along its run; a temporary water pipe was put on while placing the main underground; all the houses were connected and 3-inch valves placed for fire hydrants.

Painting.—Besides the works mentioned, the following houses were painted: The hospital, steward's residence, school house and eastern pump house.

Works supervised by J. A. Tremblay, District Engineer, Quebec.

LACHINE.

PUBLIC BUILDING—ADDITION AND ALTERATION.

A contract was entered into on August 11, 1913, for the addition to and alteration of this building, situated on St. Joseph street, involving an addition to the rear of present post office, size 38 x 48. The basement of addition was carried lower than that of the main building in order to accommodate the heating apparatus. The foundations and floor are of cement concrete, as also the footings for steel columns; an archway was cut between old portion and addition. The exterior walls are of limestone to conform with the main part of building; floors and interior walls of wood, lath and plaster; there is a large skylight over working space. A stairway leads from rear to the roof of this addition. A hot water heating system was installed throughout the building and electric lighting extended to the addition.

A town clock with a dial has been installed in the tower.

Plans and specifications prepared by this department.

Resident architect, D. Viau, Montreal, P.Q.

Contractor, Adolphe Gauthier.

LEVIS.

ARMOURY.

This building, which was described in my report of last year, is still in process of construction.

Plans, etc., prepared by this department.

Clerk of works, N. Gosselin.

Contractors. The Ideal Construction Company.

LOUISEVILLE.

PUBLIC BUILDING.

On June 23, 1913, a contract was entered into for the construction of this building, which is to be erected on the south side of St. Lawrence, with a frontage thereon of 39 feet by a depth of 56 feet, of which 14 feet at the rear is of a reduced breadth of 23 feet. It is to be a 1½ story brick building, on a stone basement, having a 4 story and basement tower included in northeastern angle. The basement is designed to contain a furnace room, a fuel room, two storage rooms and a stairway hall; on the ground floor is to be the post office, a lavatory, a mail entrance, a weights and measures office, a staircase hall and a vestibule; on the first floor is to be two Inland Revenue offices, an Inland Revenue laboratory, a bath room, a hall, a staircase hall, and five living rooms. The basement is to be floored in cement concrete and the lavatories, toilet rooms, W.C.'s, and mail lobby in tile; the basement partitions are to be brick and the remaining floors, the partitions, roof and stairs of wood.

Heating is by hot water.

Plans and specifications prepared by the department.

Clerk of Works—P. A. Mousseau.

Contractor—Jos. Bourque.

MATANE.

PUBLIC BUILDING.

On the 21st July, 1913, a contract was entered into for the construction of this building, which is situated on the east side of La Grande rue. It is a two-story brick

Public building, Brantford, Ont.

building, with stone dressings, on a stone basement, having a four-story and basement tower on the right anterior angle. It has a frontage of 40 feet by a depth of 69 feet, only 52 feet of which is the breadth of the frontage, the remaining 17 feet being 23 feet broad.

The basement floor is of cement concrete; the floor of the mail entrance, toilet rooms, public lobby and vestibules is of tile; the partitions in basement are of brick, but the remaining floors, partitions, stairs and roof are of wood.

The basement is for furnace room, fuel room and storage; the ground floor, main portion is for post office, two vestibules, a stairway hall and two toilet rooms and the adjunct, a mail entrance and an examining warehouse, and the first floor, three rooms for customs, five rooms and bath for caretaker and a stairway hall.

Heating is by hot water, and lighting by electricity.

Plans and specification prepared by this department.

Clerk of Works—Jos. Raymond.

Contractors—J. H. Morin & Sons.

MEGANTIC.

PUBLIC BUILDING.

This building, which was described in a previous report, is completed.

Plans, etc., prepared by this department.

Contractors, Paquet and Godbout.

MONTREAL.

DETENTION HOSPITAL.

This building, which was described in last year's report, is still in process of construction.

Plans, etc., prepared and work supervised by Ross and Macdonald, architects.

Contractor, C. E. Deakin.

EASTERN POSTAL STATION "C."

The construction of this building, which was described in my report of last year, is completed.

Plans and specifications prepared and work supervised by Joseph Perrault, architect, Montreal, P.Q.

Contractors, G. Séguin and Guindon.

NEW EXAMINING WAREHOUSE.

The construction of this building, a description of which is included in my report of last year, is still in progress.

Plans, etc., prepared by this department.

Resident architect, A. H. Lapierre.

Contractors, The P. Lyall and Sons Construction Company.

POSTAL STATION "F."

On August 11, 1913, a contract was entered into for the construction of this building, which is on the corner of Notre Dame and Richmond streets. It has a frontage of 50 feet on Notre Dame street by a depth on the right side, along Richmond street of 86 feet and of 78 feet on the left street, along the party wall. It has an Ionic portico in one order, 30 feet frontage by 8 feet deep in the middle of the frontage and court and platform in the rear 20 feet in length, by 14 feet in depth, which does not extend to the first floor. The public space occupies 21 feet in depth by the breadth of the

building, and extends up through the two stories, to the rear of which is on the ground floor, the working space of the post office, extending to within 14 feet of the rear where there are on the right posterior angle, a stairway, in the middle a shipping platform and court and on the left posterior angle, a brick vault. The first floor extends from the public space to the rear wall, but is 13 feet narrower; a portion of the ground floor next the party wall being one story to admit light to the working space. The basement is for heating apparatus and storage; the first floor, six living apartments, bath room, etc. The walls on the street fronts are of cut stone, the party wall of brick. The interior of the ground floor has marble dado in public space, the floor of which is laid in terrazza with marble borders.

The basement is floored in concrete and partitioned in brick. The floors, roof and partitions are principally iron and concrete.

Plans prepared and work supervised by T. J. Spence, Architect, Montreal, Que.

Contractor—Jos. Bourque, Hull, Que.

POSTAL STATION "H."

A contract for the construction of this building at the southeastern corner of Bishop street and St. Catherine street, was entered into April 8, 1913.

The building is four stories brick, on a concrete basement, the basement faced above ground with cut stone; the basement and ground floor, rusticated cut stone work, the three upper stories behind a collonade of the Ionic order, the shafts of the columns of which are 3 feet 9 inches in diameter and pass up through the three stories. There is a steel frame to the building; the floors are steel and concrete; the partitions are brick, the floor covering wood, excepting in lavatories, entrance halls' vestibules, which are laid either in terrazza or marble mosaic, and the basement floor which is laid in concrete.

The basement is to contain the boiler room, the lavatory, fuel room, ventilation machinery chamber, two elevators, storage, etc.; the ground floor, the post office, brick vault, two elevators, stairway, vestibule and hall; the first floor, the sorting department, brick vault hall, two elevators, one lavatory, stairway and corridor; the second floor, five offices, a lavatory, brick vault, two elevators, stairway and corridor; and the third floor, eight offices, hall, two toilet rooms, two elevators, brick vault and corridor. There is a mechanical system of ventilation, a steam heating apparatus and an electric lighting plant.

Plans and specifications prepared and work supervised by Cox & Amos, architects.

POSTAL STATION "L" (WESTMOUNT).

A contract for the construction of this building was entered into August 4, 1913. It has frontages of 103 feet and 90 feet respectively on Western and Green avenues, and measures 91 feet and 78 feet on the remaining two faces where there are party walls.

It is a concrete and iron construction faced on the street elevation with cut stone, in the current adaptation of French Ionic.

The basement and ground floors extend over the entire lot, but the first floor is restricted to a width of 20 feet along the street fronts, excepting 11 feet of the frontage on Greene avenue, next party wall, where it terminates and returns towards the rear a length of 35 feet.

The basement contains the furnace room, fuel room, a brick safe and storage rooms.

Plans and specification prepared and work supervised by A. Piché, architect.

Contractor—John Quinlan.

QUEBEC.

DRILL HALL—ADDITIONS AND ALTERATIONS.

For the additions and alterations of this building, a contract was entered into on May 22, 1913. The site is adjoining the old drill hall and style of the structure is French. The addition consists of two wings of a "U" shape with courtyard between; the measurements being each wing 140 feet long by 44 feet and part two and three stories high. Foundations are of concrete laid on the solid rock and extend up to the grade line and the walls up to the roof are of Canadian limestone; one roof is flat, with tar and gravel covering, the other is slanting and is of galvanized iron long sheets and covering dormor windows, having ornamental caps and towers, etc., the roof is supported by structural steel work resting on stone walls. Basement is laid off for boiler room, caretaker's cellar, fuel room, two long corridors with terrazza floors, Q.O.C.H. orderly room, four squadron army rooms, bearer company wagon room, bearer company harness room, A.S.C. wagon room, A.S.C. harness room, A.S.C. armoury, men's lavatory with enamel brick lining and tile floors. Interior construction is brick division walls, steel columns and reinforced concrete; ground floor is divided into armouries of the 8th R.R. and 9th Q.V.; vestibule, porch and corridors have wood dados and terrazza floors, men's lavatory and living quarters for caretakers; first floor plan shows a large assembly room, Q.O.C.H. officers' mess, corridor, living apartments and lavatory; second floor has hall, balcony, 9th V.R. officers' mess, 8th R.R. officers' mess, lavatory and corridors; attic floor has one large room. Interior above ground floor is divided by stud, lath and plaster walls and wood floors and plaster ceilings. An iron stairway is built in one end from the basement to attic and has terrazza treads; interior woodwork is painted. Plumbing is up to date and the heating system is by low pressure steam from tubular boilers in basement and radiators in the different rooms; there is an electric bell system and the building is electric lighted.

Plans, etc., prepared by this department.

Contractors, Jinchereau and Lalonde.

LOUISE EMBANKMENT—IMMIGRATION BUILDING.

This building, which was described in a previous report, is still in process of construction.

Plans, etc., prepared by this department.

Resident architect, J. R. Ouellette.

Contractor, Chas. Edward Deakin.

POST OFFICE ADDITION AND ALTERATIONS.

These works, which were described in last year's report, are still in progress.

Plans, etc., prepared by this department.

Resident architect, E. M. Talbot.

Contractors, Villeneuve, Bossé, Banks and Boivin.

ROBERVAL.

PUBLIC BUILDING.

This building, which was described in a previous report, is completed.

Plans, etc., prepared by this department.

Clerk of works, Alphonse Parent.

Contractor, L. B. Lachance.

ST. GABRIEL DE BRANDON.

PUBLIC BUILDING.

On December 9, 1913, a contract was entered into for the construction of this building at the intersection of St. Peter and Beausoleil streets. It is a two-story building of brick, on a concrete basement, measuring 46 feet by 39 feet, including a five-story tower on the corner next the intersection of the two streets—with the exception of the basement floor, which is concrete, and the basement partitions, which are brick, the floors, partitions, stairs and roof are of wood. The ground floor contains the post office and the upper floor living rooms.

Heating is by hot water and lighting by electricity.

Plans and specification prepared and work supervised by Finlay and Gagnon, architects.

Clerk of works—J. R. Hamilton.

Contractors—Brunet & Leclaire.

ST. LAURENT.

PUBLIC BUILDING.

On April 18, 1913, a contract for the construction of this building on the north-east corner of the intersection of Deschenes and Florence streets, was entered into.

The building measures 60 feet frontage on Deschesne street and 46 feet on Florence street, has two stories of brick with cut stone dressings on a stone basement and a flat roof. The public lobby, however, which extends the full length of the Deschesne street frontage by a depth of 15 feet, reaches from ground floor to roof—the second floor not being continued over this portion. The ground floor contains the post office, two lavatories, two stairways, one mail entrance and one entrance vestibule; the first floor eight living rooms, a bathroom, a passage and two stairways. The floor of basement is of concrete but the upper floors, as also the partitions and roof, are of wood, the floor of public hall covered with terrazza.

Plans and specification prepared and work supervised by Jno. Sawyer, architect.

Contractors, J. A. and R. Grace.

ST. LAMBERT.

PUBLIC BUILDING.

This building, which was described in a previous report, is completed.

Plans, etc., prepared by this department.

Contractor, Eugène Patenaude.

STE. THERESE.

PUBLIC BUILDING.

This building, which was described in my report of last year, is still in process of construction.

Plans, etc., prepared by this department.

Clerk of works, Hector Lebœuf.

Contractors, Jos. Lafond and O. B. Lafleur & Fils.

SHAWENEGAN FALLS.

PUBLIC BUILDING.

This building, which was described in a previous report, is completed.

Plans, etc., prepared and work supervised by Asselin and Augé, architects.

Contractor, A. Durand.

THREE RIVERS.

PUBLIC BUILDING.

A contract for the construction of this building on the Platon property, the site of the old barrack building on the Rue des Casernes was entered into February 9, 1913. It consists of a main middle portion 92 feet in frontage by 78 feet in depth, having two lateral wings each having 54 feet in frontage by 25 feet in depth making in all a frontage of 200 feet. The middle portion, excepting 25 feet in depth at the rear which is one story and basement, is three stories and basement. The outer walls are cut stone faced with terra cotta; the frame is of steel, the partitions terra cotta and the floors and roof steel and concrete.

The basement contains the Customs examining warehouse, storage room, workshop, boiler room, coal room, toilet room, and brick vault; on the ground floor the post office, the custom-house and the Inland Revenue offices, in the middle portion, the right wing and the left wing respectively; on the first floor are the Public Works offices and the Harbour Commissioners' offices, and in the attic the caretaker's rooms.

Heating is by hot water, and lighting by electricity.

Plans and specification prepared by this department.

Resident architect, Chas. Lafond.

Contractors, Verrette, Macleod & Ferron.

PROVINCE OF ONTARIO.

ACTON.

PUBLIC BUILDING.

On May 26, 1913, a contract was entered into for the construction of this building at the intersection of Mill street and Willard street, consisting of a main two stories and basement portion, having a frontage of 29 feet on Mill street by a depth of 50 feet, a one-story and basement adjunct in rear 24 feet by 23 feet and a four-story and basement tower 12 feet 6 inches square included in the left anterior angle of the main portion. The exterior walls of the basement are stone and those above are brick; the floors, partitions, stairs and roof are of wood excepting in basement where the floor is of concrete and the partitions of brick. The basement is for the heating apparatus, fuel and storage; the ground floor main portion is the post office, stairway and lavatory; the ground floor of the adjunct for the examining warehouse; the first floor has five rooms for Customs offices and six living rooms including a bath-room.

Heating is by hot water, and lighting by electricity.

Plans and specification prepared by this department.

Clerk of Works—Joseph Holmes.

Contractor—George A. Proctor.

ALMONTE.

PUBLIC BUILDING.

New boilers were installed and additional radiation put in; work supervised by Wm. Mansfield, Heating and Plumbing Inspector.

ATHENS.

PUBLIC BUILDING.

This building, which was described in my report of last year, is completed.

Plans, etc., prepared by this department.

Clerk of works, W. G. Johnson.

Contractor, John Dillon.

AYLMER.

PUBLIC BUILDING.

On April 3, 1913, a contract was entered into for the construction of this building on the corner of Talbot and Centre streets; will consist of a main front portion two stories of brick, with stone dressings on a stone basement, 55 feet frontage by 33 feet deep, and a one-story and basement rear portion 36 feet deep by 53 feet, making in all a building 55 feet by 59 feet exclusive of a projection in the right anterior portion of the front 4 feet 6 inches by 14 feet and of a four-story and basement tower 15 feet square on the left anterior angle.

In the basement is to be furnace room, fuel room and storage; on the ground floor the post office, the examining warehouse, three toilet rooms and three vestibules; on the first floor an armoury, a C.O. room, three offices, a stairway hall, a corridor and a toilet room, and in the attic seven living rooms, a bath room, a corridor and a stairway hall. The floor of the basement is concrete and that of the public lobby, vestibules, toilet rooms and bath rooms are tiles, the vestibule steps marble, and the basement partitions brick, but the remaining floors and partitions, as also the stairs and roof are of wood.

Heating is by hot water, and lighting by electricity.

The rain-water is drained to sewer and the soil and waste drains to a septic tank in yard.

Plans and specification prepared by this department.

Resident architect—Thos. Webster.

Contractors—Nagle & Mills.

BARRIE.

PUBLIC BUILDING.

Alterations were made to the heating apparatus under the supervision of Wm. Mansfield, Heating and Plumbing Inspector.

PUBLIC BUILDING ADDITION.

This building, which was described in my report of last year, is completed.

Thomas Rogers, clerk of works.

W. A. Tom, contractor.

BOWMANVILLE.

PUBLIC BUILDING.

A tower clock was erected under the supervision of Thos. A. Hastings, Clerk of Works, Toronto, Ont.

BRACEBRIDGE.

PUBLIC BUILDING.

A contract was entered into on July 4, 1913, for the construction of this building, which is situated on corner of Thomas and Manitoba streets, size of which is 59 by 39 feet, with one-story and basement, armoury of 20 by 38 feet. The building is of stone foundation; exterior walls of brick, stone trimmings, with steel columns and girders; wood floors and lath and plaster walls and concrete floors in basement; flooring of ground floor is in cement and tiles, except that of armoury which is wood. The basement is divided off into furnace room, toilet, shooting gallery under armoury, storage rooms, passages, etc., and part not excavated; ground floor contains post office, public space, working space, vaults, weights and measures office, examining warehouse, armoury and

C.O.'s office, the armoury having a galvanized iron roof; first floor contains Inland Revenue Department, Customs long room, Customs records, Collector of Customs office, corridor and halls, men and women's toilet rooms, all wood floors; second floor is made into living apartments with toilet and bath rooms, etc. Roof is of wood and covered in mansard with galvanized iron, the flat part is tar and gravel. Clock tower is on the angle of building on Thomas and Manitoba streets. The building is heated by hot water and lighted by electricity.

Plans and specifications prepared by this department.

Clerk of Works—John Jermyn.

Contractors—Simcoe Construction Company.

BRAMPTON.

PUBLIC BUILDING.

A clock tower was erected and a clock for same was installed.

Work done under the supervision of Thos. A. Hastings, Clerk of Works, Toronto, Ont.

BRANTFORD.

PUBLIC BUILDING.

Alterations in Inland Revenue and Customs Departments.

Work done under the supervision of Thos. A. Hastings, Clerk of Works, Toronto, Ont.

NEW PUBLIC BUILDING.

This building, a description of which appeared in my report of last year, is still in process of construction.

Plans, etc., prepared by this department.

Geo. W. Hall, resident architect.

P. H. Secord & Son, contractors.

BROCKVILLE.

PUBLIC BUILDING.

Changes were made in the heating on ground floor.

Work supervised by Wm. Mansfield, Heating and Plumbing Inspector.

CARLETON PLACE.

PUBLIC BUILDING.

A new boiler was installed and twin connected to existing boiler, under the supervision of Wm. Mansfield, Heating and Plumbing Inspector.

CHATHAM.

PUBLIC BUILDING.

Walls and ceilings were repaired in caretaker's quarters. Walls and ceilings were painted in a few of the offices and linoleum was laid in the postmaster's office. The wire screen was extended to ceiling.

Work done under the supervision of Thos. A. Hastings, Clerk of Works, Toronto, Ont

CHESLEY.

PUBLIC BUILDING.

This building, which was described in my report of last year, is completed.
Plans, etc., prepared by this department.
Contractors, Gilpin Brothers.

COBOURG.

PUBLIC BUILDING.

Painting of flagpole and railing was done. New post office letter boxes were installed, all under the supervision of Thos. A. Hastings, Clerk of Works, Toronto, Ont.

COLLINGWOOD.

PUBLIC BUILDING.

On 28th July, 1913, a contract was entered into for the construction of this building which measures on plan 100 feet by 72 feet, of two stories brick, the front faced with stone, all on a stone basement. The partitions of the ground and first floor are in part brick and the remainder wood. Of the 100 feet of the length of the building, 12 feet is occupied by a collonade, with cut stone pillars, extending the full breadth of the building.

The basement contains the boiler room, fuel room and store rooms; the ground floor the post office and customs examining warehouse, and the first floor, the customs and inland revenue and marine offices and the naval school.

Heating is by hot water and lighting by electricity.

Plans and specification prepared by this department.

Clerk of Works, Philip G. Palen.

Contractors—Harrington, Bryan and Healy.

DRESDEN.

PUBLIC BUILDING.

The post office letter boxes and tower clock were installed.

Work done under the supervision of Thos. A. Hastings, Clerk of Works, Toronto, Ont.

DUNDAS.

PUBLIC BUILDING.

The post office letter boxes were installed, thirteen gas brackets, five door checks were supplied and installed, a metal floor was laid in tower room and the clock in tower was installed.

Work done under the supervision of Thos. A. Hastings, Clerk of Works, Toronto, Ont.

EGANVILLE.

PUBLIC BUILDING.

A contract was entered into on June 23, 1913, for the construction of this building on an elevated plateau fronting on Bonnechère street, stone and brick walls, size of which is 40 feet by 40 feet, of two stories, basement and attic and mansard roof, with clock tower in left corner front. Floors and interior construction are of wood

and plaster and steel columns and girders; ground floor is used for post office, etc. First floor is made into living apartments. The building is heated by hot water system and lighted by electricity.

Three sides of this building are enclosed with a concrete retaining wall and walk sloping down to front with hand railing.

Plans and specifications prepared by this department.

Work supervised by Morris & Moore, architects, Pembroke.

Clerk of Works, R. G. Reinke.

Contractor, J. B. Lachance.

ELMIRA.

PUBLIC BUILDING.

On August 11, 1913, a contract was entered into for the construction of this building fronting on Arthur street, at its intersection by Water street. The building is 95 feet in length, 45 feet of which is 40 feet in breadth, 23 feet is 23 feet in breadth and the remainder is 35 feet in breadth, the last mentioned being one story and basement and the others two stories and basement, there being also an included tower four stories and basement, measuring 12 feet by 12 feet on the right anterior angle. The walls of the basement are of stone and those above of brick; the floors, roof, stairs and partitions of wood, excepting in the basement where the floor is of cement and, the partitions of brick. There is a pump in basement and a well in yard. Drainage is to a septic tank on the site. Heating is by hot water. The basement is for heating apparatus, fuel, pump room and storage; the ground floor of the main portion is for the post office, of the medium portion for the examining warehouse, weights and measures and mail entrance and of the rear, one-story portion for an armoury, a C.O. office, a vestibule and a lavatory.

Plans and specifications prepared by this department.

Clerk of Works, J. H. E. Bowman.

Contractor, E. A. Bleakney.

ELORA.

PUBLIC BUILDING.

A fence was erected in rear of lot. Gravel and earth was supplied for the driveway.

Work done under the supervision of Thos. A. Hastings, Clerk of Works, Toronto, Ont.

ESSEX.

PUBLIC BUILDING.

A fence was erected and a gate was made. Window screens and shades were supplied: cement sidewalks, curbing and steps and putting in new drain and grading grounds, was carried out as instructed. A tower clock was installed.

Work done under the supervision of Thos. A. Hastings, Clerk of Works, Toronto, Ont.

FERGUS.

PUBLIC BUILDING.

A fence was erected around the grounds, under the supervision of Thos. A. Hastings, Clerk of Works, Toronto, Ont.

FORT WILLIAM.

PUBLIC BUILDING.

The roof was repaired and kalsomining and painting was done, under the supervision of Thos. A. Hastings, Clerk of Works, Toronto, Ont.

EXAMINING WAREHOUSE.

A contract was entered into on December 31, 1913, for the construction of this building which fronts on Leith street, having May street to the right side and a lane to the left. The dimensions are 100 feet by 80 feet, three stories and basement, consisting of basement, ground, first floor, second floor and resting solidly on piles, having a concrete foundation with cut stone course on top, above which is granite to the height of top of basement window. Columns, corners and cornices are of stone and brick, concrete roof tarred and gravel; lane walls and rear walls are of brick and glass. Interior of building is all of steel and concrete construction; iron stairway and marble treads extend from the front of building entrance to the top; passenger electric elevator from basement to roof. Basement is divided into storage room, transformer room, fan room, elevator enclosure, furnace room and coal bins, toilet rooms; all partitions are of 6-inch concrete construction; ground floor has customs, customs express and inland revenue offices, with hardwood floors; corridors have marble border and terrazza floors, also vestibule and entrance, with marble border and marble treads to entrance steps; all partition walls are of concrete and steel; first floor is divided into customs long room, public place, ladies' toilet rooms, corridors, customs inspector, appraiser and collector of customs offices and stenographers' office; second floor consists of meteorological office, customs records, marine agents, harbour master, corridor, inland revenue, long room, parcels post, public space, toilet and w.c.'s.

The building is heated by hot water, lighted by electricity and has a ventilation system installed throughout; fire-escapes are provided on the rear wall and lane side wall, reaching from top to ground level

Plans and specifications prepared by this department.

Resident Architect, J. C. Stinson.

Contractor, H. H. Braden.

GALT.

PUBLIC BUILDING.

The roof and the tile floor are repaired and a tower clock was installed, under the supervision of Thos. A. Hastings, Clerk of Works, Toronto, Ont.

GANANOQUE.

PUBLIC BUILDING.

The construction of this building, a description of which appeared in my report of last year, is completed.

Heating is by hot water, and lighting by electricity.

Plans and specification prepared by this department.

Clerk of works, W. N. Rogers.

Contractor, E. A. Bleakney.

GRIMSBY.

PUBLIC BUILDING.

A contract was entered into on January 4, 1914, for the construction of this building, situated on Main street, size of which is 45 by 40 feet, with extension of

22 by 38 feet in the rear, one story high. Building constructed of stone foundation; brick and stone-faced exterior walls, wood floors, steel beams and girders, plaster and wood partitions, concrete floor in basement; of two and a half stories high, and basement in which is store rooms, coal room and furnace room; the rear extension not being excavated in basement; ground floor contains: post-office, public lobby, collector of customs offices, examining warehouse; first floor is divided into living apartments, hall, and stairs, inland revenue offices, cupboards, lavatory and bathroom; roof is of wood, flat and covered with galvanized iron, the clock tower is on the left front corner of building; a tower clock was installed.

Heating is by hot water and lighting by electricity.

Plans and specifications prepared by the department.

Clerk of Works, Kenneth N. Grant.

Contractor, E. A. Bleakney.

GUELPH.

PUBLIC BUILDING.

A few rooms were repainted and the caretaker's apartments were repapered; furniture and minor repairs effected.

Work supervised by Thos. A. Hastings, Clerk of Works, Toronto, Ont.

HAMILTON.

CUSTOM HOUSE AND POST OFFICE.

A wicket and sign were placed and two lights were supplied to the custom house.

The tile floor in vestibule was repaired; one 4-light cluster was installed. The roof and eavestroughs were repaired and the basement kalsomined. A new floor was put in the basement; a vacuum cleaner was supplied and a parcel post wicket was installed.

Work was done under the supervision of Thos. A. Hastings, Clerk of Works, Toronto, Ont.

Changes were made in the heating apparatus, under the supervision of Wm. Mansfield, Inspector of Heating and Plumbing.

HANOVER.

PUBLIC BUILDING.

A contract was entered into on February 2, 1914, for the construction of this building, situated on Durham Road; size of building 38 by 48 feet, constructed of stone basement and brick above ground with stone trimmings; there is a basement, ground floor, first floor, attic and wood mansard and galvanized iron roof and clock tower on left front corner of building. Basement is divided into storage rooms, furnace room, coal bins, etc. Ground floor: post office, etc., and examining warehouse.

Interior constructional materials are wood, lath and plaster.

First floor is used for customs purposes; long room, customs records, collector of customs.

Heating is by hot water, and lighting by electricity.

Plans and specifications prepared by the department.

Clerk of Works—J. Telford.

Contractors—W. E. Anderson & W. F. Beith.

HARRISTON.

PUBLIC BUILDING.

Two rooms were sheeted and plastered, and a clock was installed in tower. Minor repairs were made to doors and springs.

Work done under the supervision of Thos. A. Hastings, Clerk of Works, Toronto, Ont.

INGERSOLL.

PUBLIC BUILDING—ADDITIONS AND ALTERATIONS.

A contract was entered into on December 17, 1913, for the construction of addition to and alteration of the public building, which will increase the size of building to 70 x 46 feet, and of same constructive materials throughout. Basement contains the furnace, fuel and storage rooms; ground floor is divided into post office, public lobby, post office working space, postmaster's office, and examining warehouse. All vestibules, toilet rooms, passages have tile floors and metal ceilings; there are four skylights in the one story portion of ground floor. First floor contains customs long room, inland revenue long room, collector, weights and measures, customs inspector's room, toilet room, passage and corridors; attic floor is divided off into janitor's living apartments.

The heating is by hot water, supplied by two boilers and radiators in the different rooms. Modern plumbing is also installed and the building is lighted by electricity.

Plans and specifications were prepared by this department.

Clerk of works, Edouard Griffiths.

Contractor, James Bogue.

KEMPTVILLE.

PUBLIC BUILDING.

This building, which was described in my last annual report, is still in process of construction.

Plans and specification prepared by the department.

Clerk of works, J. M. Guest.

Contractors, Dominion Concrete Company, Limited.

KENORA.

PUBLIC BUILDING.

A fence was erected and repairs made to roof. A tower clock was installed.

Work supervised by Thos. A. Hastings, Clerk of Works, Toronto, Ont.

KINCARDINE.

PUBLIC BUILDING.

A new boiler was installed and twin connected to existing one, as the one installed was too small.

Work supervised by Wm. Mansfield, Heating and Plumbing Inspector.

KINGSTON.

POST OFFICE.

The additions and alterations described in my last year's report, have been completed. The post office letter boxes were installed this year.

Plans prepared and work supervised by Wm. Newlands, Architect.

Contractors—McKelvey & Birch.

R.M.C. DORMITORY.

A contract was entered into on March 22, 1912, for the construction of this building, the size of which is 150 feet frontage by 45 feet deep, with lavatories extension from the centre of building, extended back 37 feet by 25 feet wide.

The site is on the inner enclosure of the College grounds. The building is of solid stone, all around, except end of gables, which are filled in with brick so as to be ready for proposed wings to be built on either end, when required; concrete foundations and brick walls to roof, separating corridors from the rooms; the chimney is built in the centre of building with ventilation flue outside the smoke stack; there are basement, ground floor, first and second floors, all floors have steel beams and concrete construction. The roof is of wood and shingled. In basement, the boilers are installed and there are fuel and ash rooms; ground floor comprises entrance, vestibule, corridors and lavatories, bed rooms, and lavatory extension; the first and second floors are as ground floors, there are 66 bed rooms in all.

Building is heated by two tubular boilers and radiators in the different rooms; a thorough system of modern plumbing is installed and the building has a good system of ventilation and lighted by electricity.

Plans and specifications prepared by the department.

Resident Architects—Power & Son.

Contractor—Michael Sullivan.

LAKEFIELD.

PUBLIC BUILDING.

A contract was entered into on December 17, 1913, for the construction of this building, which is situated at the junction of Bridge and Queen streets, measuring 52½ feet frontage by 47 feet deep. Foundations are of concrete and interior steel columns have concrete footings and basement floor is also of concrete, and ground floor, concrete and terrazza, the rest of interior construction is wood lath and plaster, roof is of wood, mansard, covered in galvanized iron and flat with felt, tar and gravel. Exterior walls are of brick and stone trimmings. There are two entrances on Queen street, and there is a clock tower on the left front corner. The basement consists of furnace room, storage and coal rooms. The ground floor has the post office, public lobby, toilet room, vault and mail entrance; the first floor is divided into living apartments for janitor.

The building is heated by hot water and is lighted by electricity.

Plans, etc., prepared by this department.

Clerk of works, Edward Griffiths

Contractor, Joseph Bogue.

LINDSAY.

PUBLIC BUILDING.

A parcel-post wicket was installed, and minor repairs were made to locks, etc.

Work supervised by Thos. A. Hastings, Clerk of Works, Toronto, Ont.

LISTOWELL.

PUBLIC BUILDING.

The door steps were covered with lumber and door checks were supplied. A concrete roadway was put in, and partitions erected in the caretaker's quarters; a tower clock was installed; minor repairs, such as painting, etc., were effected and furniture and tile drain were supplied.

Work done under the supervision of Thos. A. Hastings, Clerk of Works, Toronto, Ont.

LONDON.

CUSTOM HOUSE.

The painting, tinting and cleaning which was commenced last year was completed. Repairs made to plumbing and a new floor put in the vestibule. A new radiator was placed in one office. Furniture and linoleum were supplied.

Work supervised by Thos. A. Hastings, Clerk of Works, Toronto, Ont.

POST OFFICE.

Repairs were made to door steps, skylights and iron work on roof. The walls of three new stores adjoining post office were kalsomined for post office purposes. A sliding door was installed at the rear entrance; openings were cut in brick walls; providing doors, taking down stairs in new stores, also one pair of doors at rear entrance of annex and constructing a runway. The basement of annex was cleaned and rubbish removed.

Work done under the supervision of Thos. A. Hastings, Clerk of Works, Toronto, Ont.

MIDLAND.

PUBLIC BUILDING.

This building, which was described in my report of last year, is still in process of construction.

Plans, etc., prepared by this department.

Richard Iles, clerk of works.

E. A. Bleakney, contractor.

MILVERTON.

A contract was entered into on March 24, 1914, for the construction of this building, size of which is 38 by 44 feet and extension 28 by 16 feet; two stories and basement, and a clock tower. Construction of exterior: stone foundations, brick walls and stone trimmings, wooden roof and interior walls of wood and plaster; floors of wood, except basement and ground floors which are of concrete; the basement contains furnace room, storage room, coal bins, etc. Ground floor is used as post office and working space, public space, lavatories and customs examining warehouse; walls are of wood, lath and plaster construction; first floor is divided into record room, customs long room, public hall, Collector of Customs office, the balance being living rooms, toilet bath and men's toilets.

The heating system is by hot water and the lighting by electricity.

Plans and specifications prepared and work supervised by Jas. S. Russell, architect, Stratford, Ont.

Clerk of Works—Wm. Hartmur.

Contractor—C. A. Bleakney.

MITCHELL.

PUBLIC BUILDING.

Concrete sidewalks, roadways and curbs were put in. The post office fittings were put in. The grounds were graded; a tower clock was installed; furniture was supplied to post office.

Work done under the supervision of Thos. A. Hastings, Clerk of Works, Toronto, Ont.

MOUNT FOREST.

PUBLIC BUILDING.

A tower clock was installed under the supervision of Thos. A. Hastings, Clerk of Works, Toronto, Ont.

NIAGARA FALLS.

PUBLIC BUILDING.

Furniture for collector of customs was supplied. A parcel post wicket and a wash basin were installed in post office. A cement roadway was done and the grounds were graded.

Work done under the supervision of Thos. A. Hastings, Clerk of Works, Toronto, Ont.

ORANGEVILLE.

PUBLIC BUILDING.

Alterations were made to customs office under the supervision of Thos. A. Hastings, Clerk of Works, Toronto, Ont.

ORILLIA.

POST OFFICE.

Additional lighting was furnished; fittings were installed and painting was done in new temporary quarters of post office.

All under the supervision of Thos. A. Hastings, Clerk of Works, Toronto, Ont.

PUBLIC BUILDING.

A contract was entered into on December 3, 1913, for additions and alterations to the above building, which with part is as it now stands, viz., size of building is 60 by 56 feet and one story in rear 34 by 40 feet. The main part of building comprises basement, ground floor and extension; first floor, attic, with wood and galvanized iron roof and clock tower on left front corner of building. Exterior walls which are of brick construction and stone trimming over doors and windows, also stone cornice and trimming to brick tower. Interior floors and walls are of wood and lath and plaster walls. Basement has cement floor, and is divided into storage room, fuel room and furnace room; ground floor is used as post office, public space, working space, examining warehouse, toilet rooms, mail lobby; floors in this flat are of concrete with tiling inlaid in most of them. There are two large entrances to post office fitted with revolving doors; first floor is divided into record room, customs, customs long room, collector of customs, toilet rooms and three large offices in rear; attic is divided into living apartments and large storage room. The building is heated by hot water and lighted by electricity.

Modern plumbing installed and ventilation system.

Plans and specifications prepared by this department.

Work supervised by W. H. Croker, architect.

Contractor—E. Webb & Son.

OSHAWA.

PUBLIC BUILDING.

A contract was entered into on October 8, 1913, for the construction of an addition to this building in the rear, size 17½ feet by 36½ feet, comprising basement and

ground floor, with flat roof and skylight. Rear wall of post office was removed and windows used in the rear wall of new addition, and walls supported by steel columns. Additional heating was also carried into new part, also electric lighting.

Plans and specifications prepared by this department.

Clerk of Works, Isaac Higgins.

Contractor, L. F. Whitman.

PUBLIC BUILDING.

A new drain was connected with conductors at post office. Furniture, such as stamp cabinet, stamping table, and desk were furnished.

Work supervised by Thos. A. Hastings, Clerk of Works, Toronto, Ont.

Guards were placed on coils in public lobby, under the supervision of Wm. Mansfield, Heating and Plumbing Inspector.

OTTAWA.

ARCHIVES BUILDING—SUSSEX STREET.

Two rooms were painted and ceilings tinted. The floor and woodwork were painted in one room. A tile surface drain 180 feet long was put in.

Work done by departmental staff.

John Shearer, Superintendent Public Buildings, Ottawa.

BIRKS BUILDING—MOUNTED POLICE OFFICES.

Three desk lamps supplied, condulets and receptacles installed and one electric fan supplied. The floors were oiled and some shelving put up; furniture and carpets supplied. A lead tank with connections was installed in Railways and Canals Department.

Work done by departmental staff.

John Shearer, Superintendent Public Buildings, Ottawa.

BOOTH BUILDING.

One room was papered and tinted, thirteen annunciators were installed, 114 window shades were supplied; new brass plate placed on door. All the above was supplied to the Indian Affairs Department.

The Indian Affairs Department was moved to this building. Eleven rooms were papered and ceilings tinted; one 4-light tungstolier, three plugs and sockets, drop light, goose-neck lamp, a desk phone, and seven electric fans were furnished and installed. A large amount of furniture supplied.

Work done by departmental staff.

John Shearer, Superintendent Public Buildings, Ottawa.

CANADIAN BUILDING.

Interior Department.—Three electric fans were furnished and installed; drop lights and desk lamps supplied to the Immigration Branch, Timber and Grazing, Lands Branch, Mining Lands and Yukon Branch, etc. Four rooms were washed and tinted; locks and keys were supplied to six offices.

Agriculture Department.—Two 3-light tungsten clusters were installed; thirteen electric fans were supplied; one wash basin was put in. Additional heating was installed in one room and repairs made where necessary. Four rooms renovated; bins erected in the Publication Branch; brass plates placed at entrance to 66 Queen street and several doors were lettered. Furniture was supplied.

Work done by departmental staff.

John Shearer, Superintendent Public Buildings, Ottawa.

Public building, Midland, Ont.

CUSTOM HOUSE.

A contract for the construction of this building on the west side of Sussex street, and the east side of Mackenzie avenue, reaching from the intersection of these streets with George street to their intersection with York street, was entered into on September 13, 1913, and the works are now in progress.

The building is 332 feet in length by a depth of 86 feet, has a basement below Sussex street, with six stories above and an additional story 59 feet long over median portion. In the rear the ground floor is below the roadway level on Mackenzie avenue, but has a covered roadway, the entire length of the building, lighted by pavement prisms. The basement is entered by stairways from ground floor at ends and fronts of building; the ground floor has entrance at middle of Sussex street front, at ends of building and at middle and ends of building opening on rear roadway. The basement contains heating boilers, Presto heaters, heating mains, fuel and storage rooms. The ground floor has entrances on Sussex street midway of the length, and near north and south ends of front, also at both ends midway of the depth of the building, and three entrances on the rear roadway as well. The basement floor contains boiler house, fuel rooms and storage. The ground floor is the customs examining warehouse, and is entirely examining rooms, excepting the space occupied by vestibules, stairways, of which there is one at each end of the building, lavatories and entrances. The stairways at each end lead to the first floor and thence upward throughout the several stories. The first floor has a principal entrance on Mackenzie avenue, midway of the length, having vestibule hall and main stairway, lighted from Sussex street and flanked by elevators and lavatories. From the main hall, a corridor runs north and south, dividing the space equally into two rows of offices. Excepting the entrances, the layout of the upper floors is similar to that of the first floor.

The architectural style chosen is an adaption of early Tudor or late English Gothic. The walls are of stone, the basement and plinth of ground floor of cut granite, and the upper stories, of Nepean stone walling, with cut and moulded Wallace stone window dressings, strings, cornices, copings, etc.

The partitions, floors and roof are of iron and concrete. The heating is by hot water and the lighting by electricity.

Plans and specification prepared, and work supervised by this department.

CENTRAL STATION.

Railway Commission.—Four electric fans were supplied; eight desk lamps replaced by eight goose-neck lamps, and two more goose-neck lamps supplied. Four 100-W. lamps were replaced by four 150-W. lamps. The lettering on three rooms was changed; repairs made on four chairs. One cabinet was supplied together with a ventilator and a pneumatic air cushion. Furniture was also supplied.

Work done by departmental staff.

John Shearer, Superintendent Public Buildings, Ottawa.

EAST BLOCK.

Justice Department.—Four 5-light, five 3-light, one 6-light tungstoliers were supplied; thirteen drop lights were installed; one electric heater, one electric clock, one 6-inch disk heater, one quart tea kettle, and one quart water kettle were supplied. Two desk phones and one extension phone were supplied; call bells placed in two rooms and one annunciator was also furnished. A wash basin was supplied; increased radiation was placed in one office. Cupboards were erected and a large wooden box supplied. Gun rack, oak door frame and bicycle stand were furnished; one office was supplied with curtains, finger plate and name plate. An office was renovated and several windows repaired and doors lettered; five soap dishes, five towel

bars, five toilet cabinets, four mirrors and one mantle clock supplied. Carpets and rugs laid in two rooms and one mahogany chair and three side chairs and two tables and one revolving bookcase supplied.

Finance Department.—Two wash basins were installed in two rooms; thirteen rooms were renovated and 435 square feet of partition erected; one 4-light tungstolier, one drop light, two small sockets supplied and five 40-W. lamps were replaced by five 60-W. lamps. Cupboards, shelving, brass rods and curtains supplied; two desk phones were installed; one carpet and rug were supplied; furniture was furnished to different offices.

Work done by departmental staff.

John Shearer, Superintendent Public Buildings, Ottawa.

EXPERIMENTAL FARM.

Poultry division.—One extension phone was supplied. Building was rewired for electric lighting.

Laboratory.—Fitting new addition with plumbing, gas, etc.

Sheep Barn.—This barn was rewired for electric lighting.

Stableman's and Shepherds' Residences.—Alterations were made and plumbing was repaired.

Dominion Observatory.—New vaults were erected.

Grounds.—Thirty-four hundred feet of sewer pipe were laid; 3,100 feet of piping for irrigating lawns were laid; all electric poles were removed and wires placed in conduits; 300 feet of drain were laid to Geodetic building.

FISHERIES MUSEUM—CORNER OF O'CONNOR AND QUEEN.

Four 100-W. lamps, three rosettes and one desk lamp were supplied; four cases were made. Cupboards, cabinets, shelving and ladders were made for several offices. Three rooms were supplied with locks and keys.

Work done by the departmental staff.

John Shearer, Superintendent Public Bulidings, Ottawa.

GOVERNMENT HOUSE.

A one story and basement addition 39 feet by 29 feet was erected in the bay between the dining room and the servants' quarters, the ground floor for use as an addition to the dining room and the basement for an addition to the servants' hall and for one bedroom. A new principal entrance front to the house was built, 96 feet in length, extending between the tennis court and the ball room, 19 feet in advance of the ball room which it overlaps 21 feet and 2 feet in advance of the tennis court. It is 3 stories, basement and attic of adapted domestic Florentine style, the attic having a gable or pediment occupied by a sculptured coat of royal arms. The outer walls are of cut limestone and the floors and partitions of brick, concrete and iron. The basement contains an extension of the boiler house, a workshop, a coat room, an orderly room, a stairway and lavatories; on the ground floor are the main entrance hall, a billiard room and a promenade; on the first floor are rooms and their accessories for His Excellency's immediate staff, and on the second floor there are bedrooms. The windows of the tennis court were lowered to correspond with those of the ball room and copper roof covering and copper eaves cornices were substituted for the wooden cornices and roof covering. These changes involved the lowering of 200 feet in length of the drain which is carried through rock, the making good of old building where it adjoins the new work and the erection and removal of temporary partitions to prevent dust passing into the old building. The older portions of the house roof had 150

squares of galvanized iron roof laid on new tongued and grooved dressed boarding, in lieu of old shingle roof covering. On the flat roof of Minto wing, 9 squares of felt and gravel covering was laid as also 5½ squares on new potting shed. A new tubular boiler was provided and connected to furnish steam for the sterilizer and for the booster pump. A telephone exchange was fitted up. The water tank in attic was re-tinned with sheet lead, 475 lineal feet of double-tile conduit for light and telephone wires was laid from Lisgar road to Rideau cottage, having three concrete manholes with cast iron covers. A new 5-inch water main was laid from Dufferin road to Rideau cottage, connected with the old 3-inch main and a new hydrant connected thereto. A greenhouse 120 feet by 20 feet was built next and similar to old wooden greenhouse, also a potting shed 38 feet by 12 feet, to replace the old potting shed which was demolished as it was too small to serve both greenhouses. The greenhouse furnace room and the fuel room were doubled in size and an extra boiler and 600 feet of 4-inch pipe with all valves, etc., installed. Fourteen feet in height was added to both of the chimnies of the main greenhouse, which were then stayed with iron rods.. Three hundred lineal feet of the shelving in these greenhouses which were decayed, were replaced and the two steam boilers were fitted up with O'Neil's patent coal saver. In room 15, first floor, the mantle was removed, the floor was tiled and a new bath was installed.

A clapboarded and shingled shed 32 feet by 15 feet by 20 feet was constructed in rear of men's cottages.

The shed for bituminous coal, which was falling down, was demolished and rebuilt with a concrete foundation. Fifty-five squares of shingling were relaid on roofs of stables, coach house and curling rink. An overhead pathway 65 feet by 5 feet 6 inches was erected near foot of toboggan slide with necessary stairs to guard against possibility of accident to skaters passing from large to small skating rink.

1,450 lineal feet of 4 feet strip-fence was entirely removed and the entire grounds made one expanse; 540 lineal feet of 8 feet board fence was rebuilt at kitchen garden, and 500 sup. yards of concrete walk 4 feet wide, were laid to replace wornout plank-walks; 275 yards in lawns, where walks were closed up, were sodded, and 2,800 yards of sodding on lawns were renewed after destruction by the building operations on main front, also a quantity of regrading, involving the use of fifty tons of crushed stone, on roadways injured and the removal of a number of trees.

The new portions of the building were thoroughly fitted up and furnished with carpets, rugs, curtains, blinds, tables, chairs, etc, wardrobes, bedsteads, etc., etc. A large number of each, over 700 yards of carpet and 10 rugs for this new part being supplied. For the house generally, there were supplied 67 yards of carpet, 6 chairs, 18 baskets, 3 bedsteads, mattresses, pillows, etc., 3 mirrors, 6 thermometers, 14 trays, 80 dozens tumblers, 52 dozens cups and saucers, 200 soup cups, 3 dozen egg cups, 9½ dozens plates and platters, 60 water bottles, 2 decanters, 3 dozen egg cups and a number of other articles of china.

The furniture throughout the house was largely repaired, cleaned, stained and varnished, etc.; 3,600 yards of carpet and a large number of rugs were taken up and relaid, and repairs were made to curtains, napery, etc. There were provided 22 dozen towels, 30 sheets, 13 comforters, 24 blankets, 12 quilts, 12 dozen dusters, 2 dozen pillow cases, 9 dozen kitchen cloths, 3 dozen men's aprons, 6 dozen soup cloths, 2 dozen table cloths and 2 dozen hearth sheets.

To Rideau cottage, there were provided 194 yards carpet, 3 mats, 2 hassocks, 8 yards easement cloth, 1 coal stove for servants' hall, 1 gas stove, 2 coal hods, 4 fire sets, 1 electric iron, 3 chamber sets, 24 jugs, 1 dinner set, 5 decanters, 2 tea sets, 2 teapots, 2½ dozen tumblers, 6 cups and saucers, 6 pudding dishes, 4 breakfast dishes, 3 marmalade pots, 12 caraffes, 4 salts, 8 thermometers, 2 slop jars, 1 dozen bowls, together with a large number of kitchen utensils.

The conservatories were kept in order, the hay was cut and housed, the lawns, drives, etc., rolled and otherwise tended. The ice-house was stored with ice. The

roofs, paths, slides, etc., were cleared of snow by the departmental staff, by whom the grounds, lawns, gardens and plant-houses were maintained. The curling and skating rinks were flooded and tended and the toboggan slide kept in order. The usual periodic cleaning, packing and unpacking done; arangements for, and attendance on, entertainments were furnished, and the rinks, slides, etc., kept in order.

Work done under the supervision of Wm. Hutchinson, superintendent.

JOURNAL BUILDING—QUEEN STREET.

Auditor General's.—One extension telephone was placed in one office; three call bells and one bell block were supplied; six soap dispensers placed, six desks, one rug and other furniture supplied; one 4-light tungstolier, three yale locks, twenty keys, and one water cooler were supplied. Some shelving was painted; eight drop lights were installed and one goose-neck lamp and three desk-lamps were supplied; five 6-light tungstoliers were supplied and installed; three desk phones and one extension phone were installed; one electric clock installed. Three rooms redecorated and painted; three wire guards were installed; cupboards and furniture were also supplied.

Branches of Public Works Department and Interior Department were moved into this building.

Work done by the departmental staff.

John Shearer, Superintendent Public Buildings, Ottawa.

LANGEVIN BLOCK.

Interior Department.—Nine electric fans were installed; tungstoliers and drop lights were installed in the different branches of this department; shades, call bells, annunciators and other electrical supplies were also placed in the different branches as requisitioned for. Two rooms were washed and tinted, and the floors varnished; drawing tables, cabinets, cupboards, shelving, stepladders, etc., supplied; repairing of furniture done for the different branches of the department. Some thirty cushions also were supplied to several branches.

Agriculture Department.—Lighting rearranged in one room and thirteen 3-light tungstoliers added and panel board installed; two 4-light tungsten clusters, 30 drop lights, fourteen 4-light tungstoliers, seven 3-light tungsten clusters, twenty-eight electric fans were supplied, four wash basins were installed, a radiator was connected ten 12-station Deveau desk phones were installed; new wash basins were installed in two offices; call bells were altered in one room. One room was renovated and one doorway cut through.

MASONIC TEMPLE—COMMISSION OF CONSERVATION.

Eight 4-light, twenty-five 3-light, four 2-light tungstoliers, and twenty-seven drop lights were supplied, and a considerable amount of electrical wiring was done; three call bells, three push buttons; one 2-point annunciator were supplied; two extension phones were put in, and 500 feet of phone wire supplied, and also two electric fans. Lettering was done on twenty-four doors; three windows were frosted, three brass rods and curtains supplied; fourteen lengths of picture moulding was placed. A door was removed and opening filled. Skeleton framework was made for boxes.

Work done by departmental staff.

John Shearer, Superintendent Public Buildings, Ottawa.

MCNEIL-STEWART BUILDING.

Auditor General.—Furniture was supplied to one office. The walls of third and fourth floors were washed and tinted and floors oiled.

Work done by departmental staff.

John Shearer, Superintendent Public Buildings, Ottawa.

MINES BUILDING—SUSSEX STREET.

Mines Branch.—Seven goose-neck lamps, two desk lamps, one switch, fuses, cut-outs, etc., were supplied; one ringing transformer was installed. A new roof and floor were made for shed and repairs made to brick and doors. Repairs were made to new centrifugal pump; one blower and vacuum apparatus were installed and connections made for four gas furnaces. Four tables were supplied; seventy-seven metal labels were affixed to cases. A considerable amount of painting was done.

Work done by departmental staff.

John Shearer, Superintendent Public Buildings, Ottawa.

NAVY BUILDING—SUSSEX STREET.

Grading and sodding was done. Work done by departmental staff.

John Shearer, Superintendent Public Buildings, Ottawa.

PARLIAMENT BUILDINGS.

Senate.—The heating system in a large number of rooms was altered; a gas stove was installed; one room was washed and tinted. Three telephones were installed; some furniture was supplied and a few drop lights were installed. Fire detectors were placed.

House of Commons.—New furniture was supplied to a few offices. Twelve 4-light, four 5-light, one 6-light, ten 3-light, seven 4-light, five 5-light tungstoliers, and one 3-light, four wall brackets and two sockets, one drop light, four desk lamps and one Lynn lamp were supplied and installed. A desk phone and bracket were supplied; three electric heaters were placed in Speaker's rooms; annunciator push buttons were installed. One wash basin and radiater were supplied and installed. Two rooms were renovated and the floor of the restaurant were shellacked. The walls and ceilings of the corridors were oiled and the outside of window frames were painted. Ventilating system was installed; the lavatories in the Parliament Library were renewed; walls and floors tiled and the rooms made sanitary and up-to-date.

Work done by departmental staff.

John Shearer, Superintendent Public Buildings, Ottawa.

PARLIAMENT HILL GROUNDS.

The roadway and pavement, which was laid in 1906, was given a coat of asphalt. Foundations were laid for the Baldwin-Lafontaine and McGee monuments. A 6-inch concrete pavement was laid in the courtyard of the East block. The electric service wires were placed in vitrified clay conduits. A sewer pipe was renewed; all wooden stairs leading from Parliament hill to the Lovers' walk were removed and replaced by stairways in reinforced concrete. A large part of the retaining wall of Lovers' walk was renewed and an iron handrail put in place of old wooden one. The retaining and area wall, north of the East block, was removed and a concrete wall built and prismatic lights set therein, the enclosed area forming a sidewalk across the north end of the building. A number of the air ducts leading from the buildings to the cliff were cleaned and whitewashed; snow was removed, the grass was cut and watered, etc. Flower beds were planted.

Work done by departmental staff.

John Shearer, Superintendent Public Buildings, Ottawa

Thomas Davis, gardener.

PRINTING BUREAU.

Electrical material to the value of $394.91 was supplied, as well as 1,000 40-watt lamps, two electric fans, and four telephones, 150 feet of steampipe were covered

with asbestos. Two windows were made and placed in top floor. Requisitions for furniture were filled.

Work done by departmental staff.

John Shearer, Superintendent Public Buildings, Ottawa.

REGAL BUILDING.

Labour Department.—One 4-light tungstolier, eight drop lights, two pulley lights were installed, twelve shades supplied and 20 feet of shelving was put up, eight tin signs were supplied.

Work done by departmental staff.

John Shearer, Superintendent Public Buildings, Ottawa.

VICTORIAL MEMORIAL MUSEUM.

Seven 3-light tungstoliers, four pulley lamps, one desk lamp, twenty-three 250 watt lamps, together with sockets, cord, shades, etc., were supplied and installed. One extension telephone and one fan were supplied; gas connections were made; three new windows were placed, two steel grates installed. Furniture was supplied as requisitioned for.

Work done by departmental staff.

John Shearer, Superintendent Public Buildings.

CUSTOMS SHIPPING OFFICE, 256 WELLINGTON STREET.

This is a rented building. One electric lighting system was put in this building, twenty-five 4-light tungstoliers, two 5-light tungstoliers, fourteen drop lights, six clusters, eight pulley lights were installed, six desk lamps were supplied; one bracket, socket and shade were supplied; two 2-point annunciators were installed. In twelve rooms the walls were washed and tinted, woodwork painted, etc. Two new window frames were placed; the heating was altered in two rooms, minor repairs made in seven rooms. Furniture supplied to different offices.

Work done by departmental staff.

John Shearer, Superintendent Public Buildings, Ottawa.

INLAND REVENUE LABORATORIES, 317 QUEEN STREET.

This is a rented building. Furniture of various kinds was supplied to several rooms.

John Shearer, Superintendent Public Buildings, Ottawa.

WEIGHTS AND MEASURES OFFICE.

This is a rented building. Large cupboard was supplied, one roll-top desk, two R. & T. chairs and four side chairs supplied.

Work done by departmental staff.

John Shearer, Superintendent Public Buildings, Ottawa.

MAILING BRANCH—INTERIOR DEPARTMENT, 102 WELLINGTON STREET.

Drop lights and desk lamps were installed.

Work done by departmental staff.

John Shearer, Superintendent Public Buildings, Ottawa.

RIDEAU CLUB BUILDING—POST OFFICE DEPARTMENT.

One map rack was furnished. The electric fixtures were adjusted.

Work done by departmental staff.

John Shearer, Superintendent Public Buildings, Ottawa.

MILITIA DEPARTMENT, 118 VITTORIA STREET.

Two rooms were papered and painted and coils were bronzed; a new radiator was installed. The floor was repaired in two rooms and two partitions removed.

Work done by departmental staff.

John Shearer, Superintendent Public Buildings, Ottawa.

POSTAL STORES BRANCH—ROBINSON BUILDING.

Partitions were erected, desk phones installed; three 4-light tungstoliers were supplied and installed; one desk phone was installed.

Work done by departmental staff.

John Shearer, Superintendent Public Buildings, Ottawa.

ROYAL MINT.

Two hydrants and 1½-inch plug were put down. Flower beds were planted.

Work done by departmental staff.

John Shearer, Superintendent Public Buildings, Ottawa.

Thomas Davis, Gardener.

SUPREME COURT.

Seventeen 3-light and eleven 2-light tungstoliers were installed, three 6-light fixtures and four desk lamps were supplied; call bells were supplied and installed; 11 feet of wardrobe was supplied and 6 chairs re-caned. One table was re-covered with cloth. A small quantity of furniture was supplied.

Work done by departmental staff.

John Shearer, Superintendent Public Buildings, Ottawa.

TOPOGRAPHICAL SURVEYS, BRANCH—INTERIOR DEPARTMENT.

Gail Webb arms were installed; one room was washed and tinted; locks and keys were supplied.

Work done by departmental staff.

John Shearer, Superintendent Public Buildings, Ottawa.

TRAFALGAR BUILDING—CIVIL SERVICE COMMISSION.

Four rooms were washed and tinted and supplied with keys; a call bell was installed; shelving was placed in the vault and furniture of various kinds was supplied to three rooms.

Interior Department.—Three electric fans.

Work done by departmental staff.

John Shearer, Superintendent Public Buildings, Ottawa.

UNION BANK BUILDING.

Interior Department.—Five electric fans were supplied; the air tanks painted, door signs repainted and relettered. Water connections were rearranged, and basins and soap dispensers supplied.

Post Office Department.—Partitions were erected in the Staff Branch.

Work done by departmental staff.

John Shearer, Superintendent Public Buildings, Ottawa.

WEST BLOCK.

The electrical work in the Inland Revenue Department consisted of four desk lamps, three arc lamps, two 3-light tungsten clusters, two roller desk lamps, and one pendant switch, one 3-light tungstolier, three shades; rearrangement of bells in various offices, and bell blocks supplied. Five rooms and one staircase were washed and tinted; 26 feet of wood and glass partition was put up and 3 square yards of hardwood flooring laid, and two brass rods and curtains supplied. Some 627 square feet of Magna asbestos flooring was laid in a room, and 1,393 square feet of the same floor was also laid in hall of new wing. Lead covering was placed in test bench and gas connections supplied. Heating was changed in one room and a wash basin was installed. A standing desk and rug were supplied to the Gas and Electricity Branch. Three rooms were supplied with some furniture.

Marine and Fisheries Department.—Three 250-watt lamps were installed, and four tungstoliers, drop lights and desk lamps were supplied; two call bells were rearranged; four electric fans were supplied; two rooms renovated; four wash basins installed; three rotary ventilators were supplied and installed. Furniture was supplied to several of the offices on requisitions.

Public Works Department.—One 4-light and four 3-light tungstoliers were installed; two Veluria fixtures, fifteen drop lights, seven goose-neck lamps and several desk lamps were supplied and installed; six mercury vapor lamps were installed in the photographer's room; five electric fans were supplied, several call bells were installed, one desk phone with two extensions installed; one electric clock was furnished and installed; eight rooms were renovated; 296 boxes were made for the Stationery Branch, five tables, two cupboards, two benches, two bookcases were supplied; a pine partition was put up. The ventilating of Mr. McLaughlin's rooms was attended to. The plumbing was also attended to in the cement laboratory; seventeen chairs were supplied from stock; keys, locks and door springs were supplied. All requisitions for furniture were carefully filled.

Railways and Canals Department.—Twenty-two 3-glower lamps were replaced by twenty-two 4-light tungstoliers, two tungstoliers, sixteen drop lights, two goose-neck lamps, 200 feet of cord, shades, etc., supplied, two rooms had a rearrangement of lights, a wall phone and booth; two desk phones and two extension phones; three call bells; rearrangement of bells in six rooms; one 2-point annunciator was supplied; six wash basins were supplied and installed; two radiators were installed; one electric clock and two ventilators were supplied, ten rooms were washed, tinted and woodwork painted; a plaster partition was erected, thirty-two boxes were supplied to the Stationery Department. Two sets of shelving and a draughting table were supplied. Repairs were made to furniture and a number of rods and curtains and a cloth door were installed; chairs, stools and desks were supplied from stock.

Trade and Commerce Department.—Eight electric fans and a desk phone were installed, some shelving was erected; one oak cabinet, six sorting trays, a table and stepladder, a desk lamp and drop light were supplied and ten adding machines were wired. A curtain was made and placed around wash basin. One room was renovated; repairs were effected to furniture.

Customs Department.—Desk telephones were installed in two rooms, and electric bells were installed.

Work done by departmental staff.

John Shearer, Superintendent Public Buildings, Ottawa.

WOODS BUILDING—AGRICULTURAL DEPARTMENT.

Sixteen 4-light and three 3-light tungsten clusters and thirteen drop lights were supplied and installed; seven electric fans were supplied; ten 12-station Deveau's

desk phones were placed in the Live Stock Branch; a wall phone was placed in the residence of the live stock commissioner; one desk phone was placed in one office.

Work done by departmental staff.

John Shearer, Superintendent Public Buildings, Ottawa.

WOODS BUILDING AND AYLMER APARTMENTS, SLATER STREET.

Militia and Defence Department.—Two 3-light tungstoliers, forty-nine drop lights, twenty-eight desk lamps, sixteen electric fans were supplied. A 90-point annunciator was installed; connections for call bells were made between twelve rooms; five telephones and one extension were installed; sixteen rooms were washed, tinted and the floors cleaned and oiled. The radiators in these rooms were bronzed, two rooms papered and painted; thirty-two panes of glass put in, four cast-iron wash basins were installed. Shelving was made for three rooms, 32 feet racks, six cabinets and two cupboards were also supplied. Furniture was supplied as per requisitions.

Work done by departmental staff.

John Shearer, Superintendent Public Buildings, Ottawa.

VICTORIA ISLAND.

Six rotary ventilators were supplied and installed in the methylated spirits warehouse.

Work done by departmental staff.

John Shearer, Superintendent Public Buildings, Ottawa.

BUILDINGS AND GROUNDS GENERALLY.

In addition to the works mentioned in the foregoing, there are innumerable smaller works, e.g., there are items of repair done by the roofers, masons, plumbers, locksmiths, electricians, fitters and other trades, items taking each a number of day's work of a tradesman, besides material to accomplish; minor works such as moving furniture from office to office, amounting to a large aggregate. Besides all these in connection with the various buildings, the property of the Government, there are similar works of repair, painting, papering, furnishing, tinting, etc., in connection with the numerous rented buildings, such works of repairs to, and renewals of, coal and other sheds, as well as works of a general character, such as the erection and taking down and storing of porches, winter boarding of outside steps, etc., all of which are done by the departmental staff.

John Shearer, superintendent.

PARIS.

PUBLIC BUILDING ADDITION.

Addition and alteration described in my last year's report are completed. A new steel flagpole was supplied, and a tower clock installed.

All work done under the supervision of Thos. A. Hastings, clerk of works, Toronto, Ont.

PETERBOROUGH.

POST OFFICE.

A glass partition was placed around bathroom in caretaker's quarters. Two tables and one chair were supplied.

Work supervised by Thos. A. Hastings, clerk of works, Toronto, Ont.

PEMBROKE.

PUBLIC BUILDING—ADDITION AND ALTERATION.

These works, which were described in last year's report, are practically completed.
Plans, etc., prepared by this department.
Resident architect, W. J. Moore.
Contractor, W. H. Beatty.

DRILL HALL.

A contract was entered into on October 1, 1912, for the erection of this building, which measures 87 feet 4 inches by 185 feet 8 inches. The foundations and division walls, in excavated portion of basement, are of concrete and concrete flooring. Exterior walls are of concrete to ground floor level and brick to roof with stone trimmings, sills, keys, etc.; the roof has two slants formed by steel trusses and covered with boards and flat galvanized iron plates. Basement has men's lavatory, officers' lavatory, furnace room, fuel room at both ends of building; on first floor the armouries are situated at each end and floored with wood over cement; the hall is 128 by 78 feet, and above this floor there is a gallery at each end. The building is heated by hot air.

Plans, etc., prepared by this department.
Resident architect, W. J. Moore.
Contractor, W. H. Beatty.

PETROLIA.

PUBLIC BUILDING.

Additional heating surface was put in the ground floor and plumbing altered.
Work supervised by Wm. Mansfield, heating and plumbing inspector.

PICTON.

PUBLIC BUILDING.

Painting and kalsomining was done in a few rooms. The roof was repaired, new post office letter boxes were installed and one truck was supplied. All under the supervision of Thos. A. Hastings, clerk of works, Toronto, Ont.

PORT ARTHUR.

DRILL HALL.

On April 21, 1913, a contract was entered into for the construction of this building on the southwestern side of Park street having Second street on the right or western side. It has a length of 249 feet by a breadth of 114 feet for 25 feet of the front end and 21 feet of the rear end, the main portion between being 169 feet long by 86 feet broad. The main portion has basement and ground floor, the front portion basement, ground and first floors and the rear portion basement and ground floor. The front and rear portions have flat roofs and the main portion a span roof.

The walls are brick with cut stone dressings, on a cut stone basement; the partitions are brick, the stairways and gallery iron, the basement floor of concrete and the remaining floors wood.

The basement contains, in front portion: 2 bowling alleys, 1 shooting gallery, 1 fuel room, 2 lavatory rooms and a stairway hall; the rear portion, 2 band rooms, 6 living rooms for caretaker, 2 vestibules and a stairway hall; the main portion contain one mobilization store, 2 quartermaster stores, a boiler house and 16 armouries. On

the ground floor, in front portion are the entrance, officers' assembly room, 1 officers' ante-room, 1 officers' stores, 2 C.O. offices, 2 orderly rooms, 1 officers' coat room, 1 officers' lavatory, 2 stairways and corridors; in the rear portion are 1 lecture room, 2 mens' coat rooms, 2 recreation rooms, 2 staircase halls and 2 staircases; in the main portion the drill hall 169 feet by 86 feet. The first floor which is limited to the front portion, contains 1 officers' assembly room, 1 officers' ante-room, 1 officers' stores, 1 sergeants' assembly room, 1 sergeants' ante-room; 1 sergeants' stores, 1 sergeants' lavatory, 2 staircases and a hall. The entire building, including the drill hall, is heated by steam and lighted by electricity.

Plans and specifications prepared by this department.

Resident architects, Hood & Scott.

Contractors, Theale, Brown & Stewart.

EXAMINING WAREHOUSE.

A contract was entered into on April 21, 1913, for the construction of this building, which is bounded on the south frontage by Arthur street, on West side by South Water street and Lorne street on the north. Size of building is 69 feet by 139 feet, comprising basement, ground, first, second and third floors. This building is on a concrete foundation laid on a bedding of steel and concrete construction having an exterior granite course on the foundation wall, a cut stone front, up to top of ground floor and the balance of walls to roof of brick; interior walls and floors are all in concrete reinforced construction; floor is laid in brick in most of the rooms and all the corridors are laid in concrete and terrazza. Three elevators are installed, two for freight and one for passengers; stairs are provided also from bottom to top of building of ornamental cast iron standards and marble treads and a heavy wire screen encloses elevators from stairs. Roof is flat, of concrete with felt, tar and gravel, and a metal cornice surrounds the building. The basement contains coal bunkers, transformer room, fan room, boiler room, large storage rooms, and the stairway leading to ground floor. The ground floor is divided into examining warehouse, gas and electricity rooms, Indian Affairs, halls, corridors, Immigration waiting room, weights and measures, men and women's toilet rooms. First floor contains: Customs long room, working space, delivery of goods, customs express, vault, men's toilet rooms. Second floor is divided into harbour masters' office, Marine and Fisheries Department, steamboat inspector's office, Inland Revenue collector's room, Customs warcroom, lavatories and several other offices and women's toilet, corridors and vault. Third floor contains Meteorological Department, assistant engineer, district engineer, stenographer and draughting rooms, corridors, King's warehouse, men's toilet and janitor's living apartments. All rooms in building have plastered walls and ceilings, and the halls and corridors have terrazza floors with marble borders. The building is steam heated and has a system of ventilation. There is electric lighting throughout.

Plans and specifications prepared by this department, and work supervised by Messrs Hood & Scott, architects.

Contractors, Theale, Brown & Stewart.

POST OFFICE.

Post office letter boxes were installed and furniture supplied to the inspector of steamboats; additional lighting was put in; a flag pole was erected, a desk supplied, a paper burner placed in basement and repairs were made to roof and eavestroughs.

Work done under the supervision of Thos. A. Hastings, clerk of works, Toronto, Ont.

PORT COLBORNE.

PUBLIC BUILDING.

Radiator were installed in the working portion of the post office under the supervision of Wm. Mansfield, heating and plumbing inspector.

PORT HOPE.

PUBLIC BUILDING.

One arc lamp was placed in post office, latches and brass plates, 3 springs and door checks were supplied. The customs office and caretaker's quarters were painted and kalsomined.

Work supervised by Thos. A. Hastings, clerk of works, Toronto, Ont.

PORT PERRY.

PUBLIC BUILDING.

This building, which was described in my report of 1913, is completed. Concrete sidewalk and curb, grading of grounds is done, the post office fittings installed, a fence erected and a tower cloek installed.

Plans, etc., prepared by this department.

Clerk of works, W. L. Parrish.

Contractor, W. J. Trick.

New boiler was installed and additional radiation, under the supervision of Wm. Mansfield, heating and plumbing inspector.

PRESTON.

PUBLIC BUILDING.

A contract was entered into on August 4, 1913, for the construction of this building to be erected on a plot of ground 66 by 165 feet, corner King and Church streets. The building is 53 feet by 105 feet, with two flat extensions of 38 by 33 feet fronting on Church street. It consists of basement, ground, first and attic floors; foundations are of concrete, also footings of steel columns; exterior walls are of stone to top of basement and brick to top of building and stone courses and trimmings, also cornice; roof is of wood with galvanized iron mansard, and flat top has felt, tar and gravel roofing; interior is of wood floors, and lath and plaster walls; there are skylights in roof to light dark rooms.

Basement has concrete floors, is used for furnace room, coal bunkers, storage room, vaults and shooting gallery; stairs leading up to ground floor which has hardwood floors except public lobby which has Pyrofugout floors and is divided off for post office, working space, public lobby, vestibule, main entrance, vault, examining warehouse, weights and measures, toilet rooms, etc.; first floor is used as collector's office, Inland Revenue, Customs postal parcels office, long room, Customs records, assembly room, Q.M.S. armoury, C.O's rooms, corridors, etc. Attic is made into living apartments for janitor. The building is heated by hot water.

Plans and specifications were prepared by this department.

Clerk of works, Jacob Miskler.

Contractor, Geo. A. Proctor.

RENFREW.

PUBLIC BUILDING.

Additional heating surface and an extra boiler were installed under the supervision of Wm. Mansfield, heating and plumbing inspector.

SARNIA.

PUBLIC BUILDING.

A desk was supplied to the immigration office; a parcel post wicket was installed in post office.

Work supervised by Thos. A. Hastings, clerk of works, Toronto, Ont.

Three new boilers were put in and the mains were covered with asbestos.

Work supervised by Wm. Mansfield, heating and plumbing inspector.

SEAFORTH.

PUBLIC BUILDING.

This building, which was described in my report af 1913, is completed; a tower clock was installed, and furniture and window shades supplied.

Plans, etc., prepared by this department.

Clerk of works, Richard Wright.

Contractor, Thomas McKenzie.

SHELBORNE.

PUBLIC BUILDING.

A contract was entered into on August 16, 1913, for the construction of this building fronting Owen Sound street on a plot of ground 63 feet front, 86 feet deep. with a laneway on the left front side 20 feet wide. The building comprises basement, ground and first floor, having a mansard roof and on the left front corner is built a clock tower. There is an extension to the rear of ground floor of 48 by 23 feet. The building is of solid stone on four sides, concrete floor in basement and tile and concrete on the ground floor, galvanized iron, felt, tar and gravel, Basement is used as storage room, furnace room and coal room; ground floor as post office, public space, working space and hall. Armoury wing in the rear with C.O's room, lavatories, corridors, etc. First floor is divided into living apartments with bath-room, etc. Heating is by hot water and lighting by electricity.

Plans and specifications prepared by this department.

Work supervised by Rev. Dr. McKenzie, architect.

Contractors, A. Green & Son.

STRATFORD.

PUBLIC BUILDING.

The roof of the rear addition was covered with galvanized iron. The building was wired and fixtures were put in; partitions were removed, a new counter was installed and linoleum laid in one room.

Work done under the supervision of Thos. A. Hastings, clerk of works, Toronto, Ont.

STRATHROY.

PUBLIC BUILDING.

Repairs were effected to sidewalk and tower, under the supervision of Thos. A. Hastings, clerk of works, Toronto, Ont.

ST. THOMAS.

PUBLIC BUILDING.

The caretaker's quarters were papered and new post office letter boxes were put in. The building was rewired and new fixtures were placed. Several minor repairs were made during the year.

Work done under the supervision of Thos. A. Hastings, clerk of works, Toronto, Ont.

SUDBURY.

PUBLIC BUILDING.

A contract was entered into on September 8, 1913, for the construction of this building, which is located on corner of Durham and Elm streets, consisting of basement, ground, first and second floors. The foundations and steel columns rest on concrete footings and steel I-beams; exterior walls are of solid rough stone, with cut trimmings, a clock tower is situated above the main entrance in the centre of front of building; there are two other entrances, one on Durham street to customs and one on Elm street to the post office on ground floor. Basement is used as boiler room, coal room and for storage purposes. Ground floor contains post office, public space, working space, gas and electricity offices, weights and measures office, janitor's entrance, examining warehouse, mail entrance, vault and toilet rooms; first floor contains, Inland Revenue, collector of customs, customs long room, customs officers, corridors, ladies toilet, men's toilet; attic floor is divided off into living apartments for janitor. The building is heated by hot water and lighted by electricity.

Plans, etc., prepared by this department.
Clerk of works, P. Cairns.
Contractors, Doran & Devlin.

TILBURY.

PUBLIC BUILDING.

This building, which was described in my report of 1913, is completed.
Plans, etc., prepared by this department
Clerk of works, Asa Lang.
Contractors, J. H. Piggott & Sons.

TILSONBURG.

PUBLIC BUILDING.

This building, which was described in my report of 1913 is completed. The tower is raised higher than was called for by the original plans and specifications. Window shades, clock and furniture were supplied; a fence was erected, post office fittings were put in and a tower clock installed.

Plans, etc., prepared by this department.
Resident architect, W. H. Jackson.
Contractors, Schultz Bros. & Co.

TORONTO.

POSTAL STATION "G".

A contract was entered into on August 8, 1913, for the construction of this building situated on the corner of Queen and Saulter streets, the size of which is 99 by 60

feet, three stories and basement in height, and almost a fireproof building. Exterior design is of "English Renaissance," a fine quality of cut sand stone being used in front and side walls, having a colonade on both street frontages, the southwest walls, chimneys, etc., being built of brick. The foundations are of concrete; interior construction is of steel beams, terra-cotta and concrete floors. The basement contains boiler room, fuel room, women's lavatory, men's lavatory, which are divided off by brick and terra-cotta walls; on the ground floor is the post office, public lobby and post office working space, etc., two floors above are not divided off. The building is heated by steam and lighted by electricity.

Plans and specifications prepared and building supervised by E. J. Lennox, architect, Toronto, Ont.

Contractor, Witchall & Son.

CUSTOM HOUSE.

A cashier's cage was erected and there were supplied 12 stools, 12 chairs and one uniform for elevator attendant.

Work supervised by Thos. A. Hastings, clerk of works, Toronto, Ont.

EXAMINING WAREHOUSE.

The heating was altered in part and new coils were installed; a Kielly register valve was provided and installed and new plumbing work and heating was done in teamsters' lavatory. A sink was installed on top floor and one in the drug department. Plumbing and heating were altered in No. 3 Front street examining warehouse, for Customs' Canadian express. A cupboard, table and iron safe were supplied to drug department and slate divisions placed in teamsters' lavatory. A sink and other plumbing and a table lined with lead in drug department were supplied; a doorway was cut and a tunnel connecting old building with main building, was done. Painting, kalsomining, varnishing, gas fitting, etc., was done as called for. An elevator was repaired, a concrete landing was done and the piping was done for 3 arc lamps. Boiler was repaired; one pair of doors was supplied to Customs Dominion express warehouse No. 5 Front street east.

Work done under the supervision of Thos. A. Hastings, clerk of works, Toronto, Ont.

GARAGE FOR POST OFFICE MOTORS.

I-Beams were raised at openings to enable large cars to be taken on elevator; 55 newspaper cases and 94 cases were supplied; 500 rural mail sorting cases, 25 letter carriers' cases, 10 sorting cases, 200 letter carriers' stools, 30 letter carriers' double sorting cases, 100 post office hods, and 4,000 letter boxstops were supplied.

Work supervised by Thos. A. Hastings, clerk of works, Toronto, Ont.

POST OFFICE.

A window was placed in basement; shades were supplied for windows on second floor. There were supplied 5 typewriter chairs, 24 desks, 5 arm chairs, 4 pigeon-hole cabinets, 12 sorting cases and 25 chairs; alterations were made to fittings in Railway Mail Superintendent's office; a uniform with extra trousers and cap was supplied to elevator attendant. The iron front of P.O. was wire-brushed and painted; 10 electric fans and one clock were supplied. The following were bought and supplied: one special bag rack, filing equipment and supplies, 6 warehouse trucks, 8 bag racks, 5 bags each, 180 letter boxes, 10 drawers, 1 steel filing cabinet, 8 trays, 1 oak cupboard, 50 wooden chairs for use in lunch room, 2 safes, one settee, 2 tilters, 40 collapsable cases, one vacuum cleaner, 4 tables and 8 benches. New closet was provided and

changes in ladies' lavatory were effected; the rooms on top floor repapered, and redecorated and cleaned, 15 stools were supplied to various postal stations in Toronto, as also furniture to inspector of master and mates, Fog building.

Work done under the supervision of Thos. A. Hastings, clerk of works, Toronto, Ont.

WARDEN KING BUILDING.

The interior of this building was painted, kalsomined and cleaned and the yard was paved. Partitions were erected on the ground floor and a runway was built.

Work supervised by Thos. A. Hastings, clerk of works, Toronto, Ont.

UNION STATION POSTAL STATION "A".

These offices are rented. Two tables, 12 trucks, clock and shelving were supplied and installed. One water closet was supplied and connected.

Work supervised by Thos. A. Hastings, clerk of works, Toronto, Ont..

POSTAL STATION "D".

Alterations were effected to the post office fittings; new lavatories put in basement. Copper-lined flush tanks were put in lavatories. Two office chairs were supplied to collector of customs.

Work supervised by Thos. A. Hastings, clerk of works, Toronto, Ont.

POSTAL STATION "F"—(Yonge and Charles Streets.)

A glass and sheathed partition was erected to enclose room for exhibition of plans. Furniture was supplied to office of inspector for Railway Board Commission. Alterations were made of screen, shortening public lobby and removing stamp vendor's office to inside of screen in post office.

Work supervised by Thos. A. Hastings, clerk of works, Toronto, Ont.

PARCEL POST DEPARTMENT—(Adelaide street E.).

36 wire trucks were supplied. A hot water heating system was installed; new plumbing was also installed. The brickwork was repaired; the furnace room was excavated, I-beams were put in, three counters were supplied. This building was painted and decorated and a quantity of lumber was supplied for various repairs and partitions.

Work supervised by Thos. A. Hastings, clerk of works, Toronto, Ont.

INLAND REVENUE AND ASSISTANT RECEIVER GENERAL'S OFFICE.

The caretaker's quarters were cleaned and papered and the roof was repaired; 4 arm chairs and book sections were supplied.

Work supervised by Thos. A. Hastings, clerk of works, Toronto, Ont.

UNION STATION, POSTAL STATION "A", AND IMMIGRATION STATION.

These are rented offices. Eight benches, one filing cabinet, one typewriter desk and office furniture were supplied.

Under the supervision of Thos. A. Hastings, clerk of works, Toronto, Ont.

METEOROLOGICAL BUILDING.

One radiator was installed in building adjoining. A stool, chair, rug and filing cabinet were supplied, under the supervision of Thos. A. Hastings, clerk of works, Toronto, Ont.

Public building, Aylmer, Ont.

POSTAL STATION "G" (Queen street E.)

This is a rented building. A fence was erected around lot.

Work done under the supervision of Thos. A. Hastings, clerk of works, Toronto, Ont.

TRENTON.

PUBLIC BUILDING.

Alterations were made to the heating in lobby.

Work supervised by Wm. Mansfield, heating and plumbing inspector.

UXBRIDGE.

PUBLIC BUILDING.

This building, which was described in my report of 1913, is completed. A concrete sidewalk was laid and a fence erected around lot; grading was done; additional electric lights installed in post office and 24 window shades supplied. A sheeting partition was put up in basement.

Work supervised by Thos. A. Hastings, clerk of works, Toronto, Ont.

WALKERTON.

POST OFFICE.

Conductor pipes, eavestrough, etc., were repaired, a hot water boiler was supplied to caretaker's apartments. Painting was done in a few offices.

Work supervised by Thos. A. Hastings, clerk of works, Toronto.

WELLAND.

PUBLIC BUILDING.

The pointing of brickwork and fixing of flashing of parapet wall in rear, repairing of leaks in roof was done. Gas lights were installed in post office. Bolts and bars were placed on rear doors and 50 blank keys for letter boxes were supplied.

Work supervised by Thos. A. Hastings, clerk of works, Toronto, Ont.

WINDSOR.

PUBLIC BUILDING.

New letter boxes were supplied and installed. Accommodations were installed in post office for parcel post. One hundred and fifty feet of Chamberlain stripping and new cords on window in public building.

Work supervised by Thos. A. Hastings, clerk of works, Toronto, Ont.

WOODSTOCK.

PUBLIC BUILDING.

New parcel post fittings were installed. Repairs were made to boiler and to tiles in entrance vestibules. Flower beds were planted.

Work supervised by Thos. A. Hastings, clerk of works, Toronto, Ont.

WINGHAM.

PUBLIC BUILDING.

A tower clock was installed, and the height of the tower was increased.

Work supervised by Thos. A. Hastings, clerk of works, Toronto, Ont.

PROVINCE OF MANITOBA.

BRANDON.

EXPERIMENTAL FARM—HORSE STABLE.

A contract was entered into on January 2, 1913, for the construction of this building, which was completed during the fiscal year; it measures 32 by 72 feet, one floor and loft. Foundations and footings for columns are of concrete. Roof is sloping, a concrete chimney is built with 9-inch tile pipe flue, the whole of the ground floor is laid in concrete and, where the stalls are, is grooved and checkered in passageway, along both sides and end of the passage; there is a gutter formed in the cement, the floor has stall capacity for twenty-five horses, there being several box stalls, a double hay chute, the hay loft carries feed to two stalls and these are built throughout the barn. Steel feeding mangers are placed in stalls, which are separated by partitions and extend up to ceiling. There are two wooden air ventilators, one at either end of building, running through concrete floors, for fresh air inlets, having iron grating. The building is well drained with glazed soil pipe. A stairway connects the stable to the loft at one end, and a ladder at the other; there is also a feed room on the ground floor. Interior walls are lined with matched flooring, ceilings are sheathed with tongued and grooved flooring. Building is well lighted by windows at each side, large loft door to top for hay forks, and side doors are of batten construction. Exterior walls are sheathed to roof with dressed shiplap, and roof covered throughout with spruce and two thicknesses of tar paper. Interior and exterior are painted two coats.

Plans, etc., prepared by this department.

Contractors, the Brandon Construction Co.

CARMAN.

PUBLIC BUILDING.

A contract was entered into on March 25, 1914, for the construction of this building, situated on the corner of Maple and Fournier avenue, size of which is 51½ feet by 35½ feet and two stories high and basement. The foundations are of concrete with reinforced footings under walls and steel columns, above which it is stone to the height of nine feet above sidewalk, thence brick to top of the building, a course of stone between ground floor and first floor and a stone coping at top; two entrances on Maple street have stone steps. An ornamental brick clock tower is built over the corner of Maple and Fournier streets. The roof is flat with felt, tar and gravel. Interior construction is of wood flooring and wood lath and plaster walls and ceilings, doors and bases of wood, except the public lobby, which has a cement dado, as well as toilet rooms and a terrazzo floor, also in the vestibules. Basement is divided into boiler room, fuel room, store room and stairs to ground floor on which is the post office public lobby, post office working space, main entrances, toilet room, etc. First floor has two large offices, the balance being divided into janitor's living apartments.

The heating is by hot water and lighting by electricity.

Plans, etc., prepared by this department.

Clerk of works, James Brown.

Contractors, Snider Bros.

MINNEDOSA.

PUBLIC BUILDING.

The construction of this building, which is described in last year's report, is completed.

Plans, etc., prepared by this department.

Architect in charge, W. D. Ford Blankenstein.

Contractors, The Brown Construction Co., of Winnipeg, Man.

MORDEN.

PUBLIC BUILDING.

The construction of this building, which is described in last year's report, is completed.

Plans, etc., prepared by this department.

Clerk of works, G. F. Heckles.

Contractors, the Brown Construction Co., of Winnipeg, Man.

STONEWALL.

PUBLIC BUILDING.

A contract was entered into on January 22, 1914, for the construction of this building, on Jackson avenue, the size being 50 by 40 feet. There are basement and ground floor. The four exterior walls are of rock-faced stone, with cut stone coping on top. The foundations are of stone set on concrete footings; brick piers in basement are also set on concrete, walls in basement are 12 inches brick and it is divided into fuel room, furnace room, storage room and stairs to ground floor on which is the post office, lobby, working space, mail entrance, vestibule, etc. The interior is of wood panel walls and plaster ceiling, roof is flat, covered with felt, tar and gravel. There is a septic tank placed outside the rear of building. A clock tower is situated just above the main entrance.

Heating is by hot water, and lighting by electricity.

Plans, etc., prepared by F. C. Sullivan, architect.

Contractors, Cooper, Cooper & Watts.

VIRDEN.

ARMOURY.

A contract was entered into on June 2, 1913, for the construction of this building, which is 31½ feet by 63 feet, built of wood with clapboards on exterior and shingle roof, stone foundation and wood floors and partitions, two brick chimneys. Basement is for storage, ground floor contains cavalry mobilization stores, cleaning room, sergeants' room; first floor has hall, commissioned officer and orderly rooms and cavalry armoury.

Plans, etc., prepared by the department.

Clerk of works, W. B. Walker.

Contractor, W. Manson.

WINNIPEG.

DRILL HALL.

This building for the construction of which a contract was entered into October 2, 1913, is now in progress on a plot of ground facing on the north side of Lavinia avenue, having Minto street on the west side. The building measures 316 feet on

Lavinia street by 214 feet in depth, over all, or, exclusive of projections, 306 feet by 197 feet respectively. The entire area of the building is excavated and the basement finished throughout for occupation; it contains separate shooting galleries, separate bowling alley, separate lavatory and w.c. rooms, and separate bath rooms for officers, sergeants and men, 3 artillery gun rooms, 3 wagon rooms, a boiler room, 3 fuel rooms, 29 rooms lighted by windows in outside walls and 4 stairway halls. The ground floor has a main hall measuring 238 feet by 126 feet, surrounded by 2 stories of rooms on sides and ends and 3 stories in the angle turrets, the ground floor rooms numbering 46 besides 4 stairway halls and 5 entrance halls, while there are on first floor 34 rooms, a lecture hall, 4 stairway halls and a corridor along the entire wall of the main hall having openings to galleries of main hall and furnishing access to the first floor rooms; in each of the angle turrets are two rooms and a stairway hall. The main hall, which extends up through the building, has a roof framed of iron with a lantern light 270 feet by 40 feet along the ridge. The building is of brick on a stone basement and with full cut and moulded stone trimmings to openings, as also cornices, plinths and string courses. Partitions are generally brick; the floors of basement and main hall are of steel and concrete, the former with waterproofing under, and the remaining floors of wood on steel girders; the roof of the two and three-story portions are of wood.

Heating is by a one-pipe loop steam system and lighting is by electricity.

Plans and specifications prepared and work supervised by this department.

Resident architect—H. E. Matthews.

Contractors—The Carters-Halls-Addington Co.

PROVINCE OF SASKATCHEWAN.

LLOYDMINSTER.

PUBLIC BUILDING.

The construction of this building, which was described in last year's report, is completed.

Plans, etc., prepared by this department.

Clerk of works, Emerson E. Miller.

Contractors, F. E. Healy and Jos. M. Pigott.

BATTLEFORD.

PUBLIC BUILDING.

A contract was entered into on May 16, 1913, for the construction of this building, on corner of 22nd street and Second avenue, the size is 74 by 41 feet and two stories, attic and basement, resting on concrete foundations, built to ground level, then a 3½-foot stone exterior wall, the rest of the walls of brick, galvanized iron roof mansard and flat, tar, felt and gravel roof. Clock tower is situated on left corner of second avenue; there are concrete footings under steel columns in the interior construction; basement has concrete floor and contains boiler rooms, fuel room and storage rooms, vault and stairs to ground floor, which contains post office, public lobby, post office working space, vestibule, mail entrance, weights and measures office, examining warehouse, lavatories etc. First floor contains inland revenue offices, customs office, long room, vault lavatories, hall, corridors, etc., and the attic is for janitor's living apartments. The building is heated by hot water, and lighted by electricity.

Plans, etc., prepared by this department.

Contractors—Smith Bros. & Wilson.

BIGGAR.

IMMIGRATION BUILDING.

Coal shed was erected.

Work supervised by W. T. Mollard, clerk of works, Saskatchewan and Alberta.

HUMBOLDT.

PUBLIC BUILDING.

The construction of this building, which was described in last year's report, is completed.

Plans, etc., prepared by this department.

Clerk of works, Wm. Driver.

Contractors, The Brown Construction Co.

INDIAN HEAD.

FOREST NURSERY STATION.

A contract was entered into on October 19, 1912, and the works were completed during the fiscal year, for the construction of a boarding house.

Plans and specifications prepared and work supervised by W. T. Mollard, clerk of works, Saskatchewan and Alberta, Regina, Sask.

Contractor, A. B. Hamilton.

EXPERIMENTAL FARM—BARN AND STABLING.

The construction of this building, which was described in my report of last year, is completed.

Plans were prepared and work supervised by W. T. Mollard, clerk of works, Saskatchewan and Alberta, Regina, Sask.

Contractor, A. B. Hamilton.

PUBLIC BUILDING.

New tile flooring laid in rotunda, 2,922 square feet; new soft water storage tank installed in basement, with pump and connections of R.W. pipes to same. New furniture for postmasters' office, roll top desk, 1 tilter chair and 1 clock.

Work supervised by W. T. Mollard, clerk of works, Saskatchewan and Alberta, Regina, Sask.

TELEGRAPH OFFICE.

Oak screen and counter, 1 high stool, 1 oak armchair supplied, under the supervision of W. T. Mollard, clerk of works, Saskatchewan and Alberta, Regina, Sask.

MELFORD.

PUBLIC BUILDING.

New tower clock supplied and installed, clock dials repaired (damaged by storm). New fittings installed in public building.

Work supervised by W. T. Mollard, clerk of works, Saskatchewan and Alberta, Regina, Sask.

MOOSEJAW.

NEW PUBLIC BUILDING.

This building, which was described in my last year's report, is still in process of construction.

PUBLIC BUILDING.

New tower clock installed. Temporary heating installed in new building.

DOMINION LANDS OFFICES.

Additional electric light installed.

IMMIGRATION HALL.

Check valves installed to drainage system.

OFFICES OF SUPERINTENDENT OF RAILWAY MAIL SERVICE.

Six tungsten lamps supplied.

Work supervised by W. T. Mollard, clerk of works, Saskatchewan and Alberta, Regina, Saskatchewan.

NORTH BATTLEFORD.

PUBLIC BUILDING.

For the construction of this building, a contract was entered into on May 30, 1913. The building measures 88 by 53 feet. The entire building is excavated for basement, the foundations are built of 24-inch concrete, with stone above grade line to top of basement, above which walls to roof are brick with galvanized iron mansard and flat, felt, tar and gravel top. A clock tower with four dials is built on the south-west corner of building; the basement has concrete floor and is divided into boiler room, storage, vault and stairs lead up to ground floor, which contain the post office public lobby, working space, vestibule, toilet, etc., flooring being tiled in lobby and vestibule; first floor is divided into rooms for customs and examining warehouse, fuel room; partitions being made of wood lath and plaster; second floor is intended for living apartments, with bath room, etc.

The building is heated by hot water and lighted by electricity.

Plans, etc., prepared by Stephenson, Evans & Fillingham, architects, North Battleford, Sask.

Contractors—Smith, Brown & Wilson.

PRINCE ALBERT.

DRILL HALL.

A contract was entered into on June 6, for the construction of this building, on Eighth avenue, measurement being 243 feet 9 inches frontage by 140 feet 10 inches deep, the main hall measuring 100 by 170 feet. The basement portion under main hall is not excavated. Foundations are of stone to 4 feet above grade line, walls above the foundations are of brick with buttresses and have stone trimmings, roof has two slopes and is galvanized iron plates laid on wood and supported on structural steel trusses resting on the walls. Basement at either end of building is divided into two store rooms, furnace room, fuel room, at one end and at the other, rifle range, bowling alley, furnace room, fuel room, dressing rooms, shower baths. Ground floor has cavalry room, gun and wagon sheds, battery, harness, lavatory, quartermasters' stores, armouries and main drill hall and lavatories. First floor has men's recreation room, cavalry armoury, band room, battery room, lavatory, officers' room, sergeants' room and caretaker's living apartments and a gallery overlooking the drill hall at each end.

Heating is by hot water; lighting by electricity.

Plans, etc., prepared by this department.

Clerk of works, Olaf Albrechtson.

Contractors, Pogott & Healey.

REGINA.

DOMINION LANDS OFFICE.

Painting interior of building, woodwork, varnishing and kalsomining, etc., 2 arm chairs supplied, linoleum laid in agent's office, lavatories repaired and electrical repairs performed.

Office of Inspector of Gas and Electricity.—One filing cabinet supplied.

Office of Clerk of Works.—One filing cabinet was supplied.

Work supervised by W. T. Mollard, clerk of works, Regina, Sask.

IMMIGRATION HALL.

Plaster work repaired, kalsomining ceilings and walls, lavatories and w.c.'s repaired. Hot water heating apparatus overhauled and repaired. Lobby entrance repaired; storm windows, etc., repaired.

Work supervised by W. T. Mollard, clerk of works, Saskatchewan and Alberta, Regina, Saskatchewan.

PUBLIC BUILDING.

Money order department.—New observation gallery, counters, etc., new clock tower fitted with electric wires, etc., and clock installed.

Postal clerk's recreation rooms.—Lavatory and basin filter in dead letter office supplied; offices constructed in basement and third floor, for inspectors of weights and measures. Flat top desk, tilter chair, 3 side chairs, one 3-section filing cabinet.

Postal stores Branch fitted up with shelves, chair and table, fire escape installed, post office furniture, 4 flat-top desks, 4 side chairs and 6 high stools supplied.

Street letter and parcel boxes repaired, 2 sorting cases for registered letter department, store cupboard for postal stores in basement, one table for registered letter department, and opening table, etc.

Repairs were effected to copper covering of roof, trucks, glazing, locks, springs, lock boxes and lock drawers, electric wiring, plumbing, hot water heating apparatus, electric fittings and electric elevator.

In the customs office there were cleaning, painting, kalsomining and fitting up testing room, window blind, etc., electric lighting, flat-top desk and arm chair supplied; in customs long room were supplied, flat-top desk, one banner table with book shelf, 2 arm chairs.

EXAMINING WAREHOUSE.

New counter screen supplied and installed.

Office of inspector of ports.—One filing cabinet supplied.

Work supervised by W. T. Mollard, clerk of works, Regina, Sask.

SASKATOON.

FOREST NURSERY STATION.

Superintendent's Residence.—A two-story and attic brick building on a concrete basement, 38 feet by 41 feet on plan. The basement is to contain a large furnace and storage room, 2 fuel rooms and a rain water storage tank; the ground floor: a vestibule, a hall, 4 living rooms and an office; the first floor: 4 living rooms, a hallway and a bath room, while the attic is to be unfinished.

Foreman's residence.—A two-story and attic wooden building on a concrete basement, measuring 26 feet by 28 feet on plan. There is a soft water storage tank in basement; the ground floor has a stairway hall and three living rooms; the first floor, a hall and 4 living rooms, and the attic is unfinished.

Packing house and workshop.—A two-story main portion 50 feet by 24 feet, consisting of a packing room on the ground floor and a store room above, and a one-story adjunct 24 feet by 16 feet—all of wood.

Implement shed.—A one-story wooden shed 54 feet by 24 feet was erected.

Stable.—A two-story wooden building 76 feet by 32 feet, having on the ground floor 14 stalls, 2 loose boxes, a harness room, etc., and a loft the full size of the building, over.

Work supervised by W. T. Mollard, clerk of works, Regina, Sask.

POST OFFICE.

New coal rooms and storerooms erected in basement, w.c.'s supplied and installed, post office fittings altered.

Inland Revenue offices.—New counter provided and installed, also shelving.

Work supervised by W. T. Mollard, clerk of works, Saskatchewan and Alberta, Regina, Sask.

SWIFT CURRENT.

POST OFFICE.

Doors, windows and check springs and glazing were repaired, letter boxes supplied and installed, guard bars were fitted to rear windows, and interior partitions paneled.

Dominion Lands office.—Two standing desks supplied.

Work supervised by W. T. Mollard, clerk of works, Regina, Sask.

UNITY.

IMMIGRATION HALL.

Well bored and pump installed, under the supervision of W. T. Mollard, clerk of Works, Saskatchewan and Alberta, Regina, Sask.

WEYBURN.

PUBLIC BUILDING.

The construction of this building, which was described in a previous report, is completed.

Plans, etc., prepared by this department.

Clerk of works, Geo. J. G. Jarrett.

Contractors, Navin Bros.

PROVINCE OF ALBERTA.

CALGARY.

EXAMINING WAREHOUSE.

This building, a description of which appeared in my last year's report, is still in process of construction.

Plans, etc., prepared by this department, and the heating and lighting by Domestic Engineering Co., of Montreal, P.Q.

Resident architect, Geo. Dowler.

Clerk of works, W. J. Doherty.

Contractors, Thos. J. McDiarmid Co., of Winnipeg, Man.

IMMIGRATION BUILDING.

This building, which was described in my report of last year, is completed.
Plans, etc., prepared by this department.
Clerk of works, Martin Lathanwaite.
Contractors, J. McDiarmid Co.

GRAVELBOURG.

POST OFFICE.

Storm windows provided and installed, under the supervision of W. T. Mollard, clerk of works, Saskatchewan and Alberta, Regina, Sask.

LETHBRIDGE.

PUBLIC BUILDING.

The construction of this building, which was described in my report of last year, is still in progress.
The style of architecture is a plain variety of English Renaissance.
Plans, etc., prepared by this department.
Resident architects, Charles Raley and E. E. Carver.
Contractors, Navin Bross.

MEDICINE HAT.

PUBLIC BUILDING.

One key cabinet supplied, under the supervision of W. T. Mollard, clerk of works, Saskatchewan and Alberta, Regina, Sask.

STRATHCONA.

For the erection of this building, a contract was entered into on June 26, 1911. Site is a plot of ground 218 feet frontage on Griesbach avenue, and 70 feet deep on West Railway street. The building measures 88 by 51 feet and consists of two stories and basement. The roof is flat and covered with felt, tar and gravel. The foundations are of stone backed with brick and the remaining walls of brick with stone trimmings and stone coping all round building. The basement has shooting gallery, bowling alley, mobilization stores, boiler room, lavatories, caretaker's stores and passage with stairs leading to ground floor on which is situated the assembly hall, cavalry room, harness stores, commanding officers' rooms, infantry armoury (fitted up with rifle racks, etc.), infantry quartermaster stores, engineers and harness store rooms. The first floor is divided into officers' assembly rooms, sergeants' assembly room, spare room, infantry commanding officers' room, engineers' commanding officer's room, spare room and lecture room and 4 rooms with hall and bath for caretaker's living apartments. Interior walls are all of brick with lath and plaster finish, floors of assembly and lecture rooms have beam supports eliminating any columns, and both halls have wood dado around them. The building is heated by hot water. Lighting is by electricity.
Plans, etc., prepared by this department.
Clerk of works, Wm. Dietz.
Contractors, the Brown Construction Co., of Winnipeg, Man.

PUBLIC BUILDING.

For the construction of this building, a contract was entered into on June 18, 1911. The site is the northeast corner of First street west and Whyte avenue, on a

plot of ground 66 by 100 feet. The building measures 100 feet by 56 feet deep. In basement the foundation footings for brick piers, the walls of vault, fuel rooms and floor are of concrete. Exterior walls are of stone and brick, the rear being all brick; stairs lead up to ground floor where plans show post office, post office working space, public lobby, which has a dado of Keen's cement; examining warehouse and weights and measures offices are situated in a one story extension covered with flat roof of felt, tar and gravel; rear doors and windows are guarded with iron bars on the ground floor level. A clock tower with four dials is built over corner of First and Whyte streets. First floor plan has customs long room, customs collector office, inland revenue, long room and two customs offices, corridors, lavatories and vault, all these rooms have plaster walls and ceilings, etc., etc., and wood floors. The building is heated by hot water and lighted by electricity.

Plans, etc., prepared by this department.
Clerk of works, D. F. Murphy.
Contractor, M. A. Pigott.

WETASKIWIN.

PUBLIC BUILDING.

A contract was entered into on August 15, 1911, for the oenstruction of this building, the site of which is on Pearse street. The building measures 44 feet 6 inches frontage and 50 feet 6 inches deep. The foundations are of concrete laid on concrete footings, steel columns also are bolted on concrete footings. Exterior walls are of brick above basement with stone trimmings and courses, also stone coping. Interior construction is of steel beams and columns and wood joists, walls of lath and plaster. Basement has concrete floor and toilet is tiled, and is divided into furnace room, coal room, storage and passage, and stairs lead to ground floor which is concrete and terrazza in toilet, vestibule and public space; the post office working space being wood floors; there are two entrances on front of this floor; first floor is divided into two offices, a public hall and living apartments, plaster walls and ceilings; roof is flat with felt, tar and gravel.

Heating is by hot water from boiler in basement. Plumbing and ventilation was installed, and is lighted by electricity.

Plans, etc., prepared by this department.
Clerk of works, Benjamin Miller.
Contractors, The Brown Construction Co.

PROVINCE OF BRITISH COLUMBIA.

ASHCROFT.

PUBLIC BUILDING.

Safe supplied Customs department.
Wm. Henderson, resident architect, Victoria.

CHILLIWACK.

PUBLIC BUILDING.

A clock supplied Post Office Department; cocoa mats supplied; also blinds, stools, signs for Dominion Savings bank. Post office boxes supplied and put in position; gravelling roadway and yard. Plumbing repairs, filing cabinet supplied postmaster.

COMOX.

PUBLIC BUILDING.

Supplying and installing one hundred gallons storage tank and connections, rotary pump and fittings; well sunk with concrete cribbing, taking boiler from basement and connecting up on ground floor, putting iron plates under columns, gutters cleared out, angle lamps supplied, drain and septic tank completed, steps for drop letter box constructed, window shades supplied and fitted, temporary office fixtures installed, drain made along wall and under basement floor, also opposite post office, Laying cement floor in basement, mat supplied, laying drain at back of building; lamps and glasses supplied Post Office Department, and window shades.

Work supervised by Wm. Henderson, resident architect, Victoria, B.C.

COURTENAY.

PUBLIC BUILDING.

Clearing site.

Wm. Henderson, resident architect, Victoria, B.C.

CRANBROOK.

PUBLIC BUILDING.

A clock supplied and fitted up in tower. Contract completed, ornamental stone and iron fence erected. Linoleum, carpet, desk, chairs, etc., supplied to Inland Revenue Department. Storm sashes supplied and fitted; desk supplied and cupboard under; fittings supplied and installed, angle plates supplied. Electric wiring done, clock supplied and fitted. Heating and plumbing repaired, 6 door checks and springs supplied; scraping and bronzing pipes, desk with cupboard under was supplied, general carpenter repairs, shelving, etc. Electrical wiring and lamps supplied, repairs to floor caused by fire.

A stone parapet fence with ornamental iron railing on Baker and Morbury streets, has been erected; a wooden fence for the lane and along the back, all completed.

Work supervised by Wm. Henderson, resident engineer, Victoria, B.C.

CUMBERLAND.

PUBLIC BUILDING.

New door check and light of glass supplied. Repairs to plumbing were effected.

Work supervised by Wm. Henderson, resident architect, Victoria, B.C.

DAWSON.

GOVERNMENT HOUSE.

Furniture, carpets, curtains, pictures, etc., supplied.

Work supervised by Wm. Henderson, resident architect, Victoria, B.C.

DUNCAN.

PUBLIC BUILDING.

A contract was entered into on August 12, 1913, for the construction of this building situate on a plot of ground 120 by 120 feet, on corner of Craig and Kenneth streets. The building measures 65 feet 5 inches by 65 feet 9 inches, main portion being three

stories high and basement; the foundation is of stone and concrete footings, also under steel columns; the exterior walls are of brick, with stone trimmings. A clock tower with four dials is over the corner of Craig and Kenneth streets; galvanized iron cornice around roof, which is pitched, is covered with slate; interior construction is of steel beams and columns, wood floors and wood lath and plaster walls and ceilings. Basement is divided into coal bins, two vaults and furnace room and storage space; ground floor plans show post office, post office working space, vault, Indian agent, clerks' room, council and waiting room for Indians; first floor is divided into seven rooms and corridor and ladies' toilet rooms; second floor is used as janitor's quarters, consisting of six rooms, bath room, toilet room, hall, etc.

The building is heated by hot water, and lighted by electricity.

Plans, etc., prepared by this department.

Clerk of works, H. G. Savage.

Contractors, Rourke, Macdonald & Monerieff.

Contract for this building completed.

FERNIE.

PUBLIC BUILDING.

Changing entrance in lobby; street letter boxes painted.

Work supervised by Wm. Henderson, resident architect, Victoria, B.C.

GRAND FORKS.

PUBLIC BUILDING.

Contract completed, clock tower completed; cement sidewalk laid, removing old and installing new boxes, changing sizes of radiator in lobby. Furniture supplied to Customs Department, also chairs and tables; moving safe to post office from depot.

The construction of this building is completed.

Plans, etc., prepared by this department.

Clerk of works, Geo. D. Clark.

Contractors, B. LeQuine.

Work supervised by Wm. Henderson, resident architect, Victoria, B.C.

KAMLOOPS.

PUBLIC BUILDING.

Lock boxes repaired, front steps repaired and flooring also was repaired and electrical repairs; stool supplied Inspector of Forestry; ventilating fan supplied postmaster.

Work supervised by Wm. Henderson, resident architect, Victoria, B.C.

LADYSMITH.

PUBLIC BUILDING.

Making and installing letter rack and repairs to plumbing were effected.

Work supervised by Wm. Henderson, resident architect, Victoria, B.C.

GREENWOOD.

PUBLIC BUILDING.

A contract was entered into on August 29, 1913, for the construction of this building, site of which is on a plot of ground 115 feet by 75 feet, on the corner of Government and Greenwood streets. The building measures 42 by 65 feet and has two stories

and basement; the foundations are of stone with concrete footings,and the basement floor is concrete. The street grade being so steep, there is a retaining wall of stone footing and concrete wall. Exterior walls of building rest on stone foundations, are of brick with stone trimmings. Roof is mansard, of galvanized iron and flat top, covered with felt, tar and gravel. A clock tower over the corner of Government and Greenwood streets, with two dials; steel columns have concrete casing 18 by 18 in basement and ground floors; basement has concrete floor and is divided into furnace room, coal room, 8 customs storage rooms; ground floor is concrete and tiled in public space, corridors, passages and vestibules, toilet rooms, etc., post office working space has wood floors and cement dados. Mail entrance and examining warehouse have wood dado. Columns, cornices, walls and ceilings are in plaster. There are two entrances from Greenwood street and one on Government street; first floor is divided into inland revenue, landing customs long room, customs collector, corridor, toilet rooms and living apartments, which may be used for janitor's quarters; part of this floor is lighted by a skylight in the roof. The building is heated by hot water, and lighted by electricity.

Plans, etc., prepared by this department.
Clerk of works, F. W. McLaine.
Contractors, John Burns & Son.

NANAIMO.

PUBLIC BUILDING.

Electrical repairs, installation of clock, carpentry repairs, sign for Dominion savings bank, flag pole painted, removal of old and replacing new street letter boxes, new clock for tower supplied with ironwork, etc. Cement sidewalk repaired, new cement gutter built, repairs to heating apparatus, carpentering in telegraph office, post office and fisheries; table supplied; clock installed in tower; parcel rack supplied customs; case for stamps and cash in Post Office Department.

NELSON.

PUBLIC BUILDING.

Addition completed. Three ornamental lamp standards erected; shelving in basement, janitor's quarters, carpentry repairs, street letter boxes repaired and repainted; heating and plumbing repairs; porches repaired, also customs house.

Work supervised by Wm. Henderson, resident architect, Victoria, B.C.

NEW WESTMINSTER.

PUBLIC BUILDING.

Additions under way. Towel rack supplied; plumbing repaired; roll top desk for accountant's office supplied and electrical repairs effected; filing cabinet for customs; 25 lockers supplied, shades for engineer's office; alterations and additions to accountant's office; stools, chairs, waste baskets supplied for post office. Lock boxes repaired, flag pole painted; carpets cleaned for district engineer and accountant; alterations to parcel post department.

INDIAN FISHERIES DEPARTMENT.

Flag pole painted, chair and desk supplied for fisheries offices; new tank for W.C., repairs to gate and window; repairs to clock and plumbing.

Work supervised by Wm. Henderson, resident architect, Victoria, B.C.

OCEAN FALLS.

PUBLIC BUILDING.

Safe was supplied to Customs Department.
Wm. Henderson, resident architect, Victoria, B.C.

PRINCE RUPERT.

QUARANTINE STATION HOSPITAL.

A contract for the construction of this building, the size of which is 69 feet by 60 feet, two stories and basement, was entered into on March 9, 1911. Foundations are of concrete with concrete footings and two division walls in basement which has concrete floor. Exterior construction is of wood. Ground floor has two wards, one having 6 beds and one 4 beds, room for nurse, operating room, living room, pantry, kitchen, etc., and upper floor has 3 bedrooms, lavatory, bath room, closet and landing. It is lighted by electricity, plumbing and ventilation systems were installed.

Plans, etc., prepared by this department.
Clerk of works, P. Lorinzen.
Contractors, Anderson and McKinnon.

QUARANTINE STATION.

Disinfecting tanks supplied to quarantine station.
Work supervised by Wm. Henderson, resident architect, Victoria, B.C.

REVELSTOKE.

PUBLIC BUILDING.

Street letter boxes painted, chairs, desk, carpet, etc., supplied for engineer.
Work supervised by Wm. Henderson, resident architect, Victoria, B.C.

ROSSLAND.

PUBLIC BUILDING.

Floor of lobby taken up and prepared for tiles, and tiles laid. Clock repaired, glass lights put in; electrical repairs effected; street letter boxes painted and repaired. Roof and plumbing repaired, p. o. box keys supplied; wiring done for electric meter connections.

The lobby wood floor of this building has been taken up and concrete and tile substituted, and the screen and fittings rearranged.

Work supervised by Wm. Henderson, resident architect, Victoria, B.C.

TELEGRAPH CREEK.

PUBLIC BUILDING.

Flat-top desk and chair supplied to Customs Department.
Wm. Henderson, resident architect, Victoria, B.C.

UNION BAY.

PUBLIC BUILDING.

A contract was entered into on August 15, 1913, for the construction of this building, which measures 24 by 36 feet, of wood on a concrete basement. Founda-

tions are concrete, also basement division walls and footings and iron posts for interior supports. The roof is covered with wood shingles; basement is divided into customs storage, furnace room, fuel room and stairs lead to ground floor, which is used as post office and public lobby space, etc.; first floor has three customs rooms, telegraph office and caretaker's quarters; attic floor has two rooms and hall.

Plans, etc., prepared and work supervised by Wm. Henderson, architect, Victoria, B.C.

Clerk of works, E. E. McGregor.

Contractor, John Hammond.

VANCOUVER.

NEW EXAMINING WAREHOUSE.

This building, which was described in a previous report, is completed.

IMMIGRATION BUILDING.

For the construction of this building, which is built on the harbour front, close to water's edge, a contract was entered into on February 10, 1914. To obtain a safe foundation, reinforced concrete piles had to be driven down to hard pan, on top of which concrete was poured to the height of grade line, above which walls to top of basement were made of stone. The exterior walls above basement are of brick and the roof covered with asbestos shingle with copper hips and ridges; steel columns have reinforced concrete footings and the interior constructions are of steel and concrete walls and flooring; basement floors is divided into machinery and transformer rooms, baggage room, Chinese kitchen,, whites' kitchen, heating room, coal room, fumigation room, sterlizing room, corridor, hall, Chinese cooks, laundry, kitchen stoves; first floor has reception hall, men's and women's toilet, examining rooms, medical officer, private examining room, 4 waiting rooms, 2 inspectors' rooms, chief inspector's room, guard room, stenographer's room, vault, file room and corridors. Toilet rooms, corridor, vault have terrazza floors, all others finished in birch. Second floor is divided into Chinese men's dormitory, Chinese men's recreation, Chinese women's dormitory, Chinese women's recreation, Chinese women's dining room, deport room, whites' dining room, white women's dormitory, white men's dormitory, white women's recreation, white men's recreation, 2 spare rooms, rooms for contingents, discharging rooms and several toilet rooms and corridors, which have asbestos cement composition on floors, terrazza in toilets and birch in all other rooms. Third floor has men's dormitory, dining and recreation rooms, toilets, bath, urinals and wash rooms, stenographers' dining and recreation rooms, women's dormitory, dining and recreation rooms, toilets, bath, urinals and wash rooms, stenographers' room, private detention room, file room, vault, 2 inspectors' rooms, chief inspector's room, 2 recreations, men's sick room, women's sick room, matron's room; the corridors, reception room and toilet rooms have asbestos composition floors, and all the others are of birch. Top floor, which is only in centre building, has 3 unassigned rooms, ventilation room, fan, heater and vent ducts and hall; all walls and ceilings are finished in plaster. A passenger elevator is installed near the main entrance which connects all floors, an iron stairway from basement to top flat around elevator well, with grille work between and terrazza flooring on all the landings. The building is heated by hot water throughout, and lighted by electricity.

Plans, etc., prepared and work supervised by E. E. Blackmore, resident architect.

Contractors, Snider Bros. & Brethour.

PUBLIC BUILDING.

Electric and plumbing repairs and repairs to elevator were effected, and new sections were supplied and installed in boiler. Stonework of building was pointed,

doors had side plates put on to protect plaster of elevator vestibule; general carpentry repairs done; pipes opened out and cleaned, sewers cleaned out, an incinerator installed, safety guards put on to elevators, wall bins, running ladders, stools, etc., 6 section hat and coat cabinet supplied and alterations to old fixtures; painting repaired, 70 lights, glass, flag pole painted; doors painted, pointing and waterproofing building, galvanized shields fitted on radiators, skylights repaired, windows rehung in customs record room and post office inspector's; door checks put on customs record room. Fumigating apparatus supplied and installed at wharf. Fixtures moved to sub-postal station; leaks in sidewalk repaired. Window frames and window over stamp office and ventilator put in; grill put in to close up a space over handrail in post office vestibule; repairs to door and frame at entrance to freight elevator. New spring and door holder; repairing floor of vestibule, replacing spring hinges to vestibule doors and glazing; 3 light glass put in main post office floor.

Window taken out, door put in and steps to inside; counter cut and parcel post department moved in; shelving, sliding doors, etc., for postal stores, counter screen, tables and chairs, chute to basement, four bracket lights on shelving in postal stores; electric wiring, etc., in post office. Box locks repaired, also dumb waiter; cases for money order office supplied; switch installed in stamping machine, post office boxes repaired, and truck also repaired, general carpentry repairs, fixing interior of safe and repairing done in post office inspector's office; wire screen in basement workshop window. Electric hoist installed; wicket in general delivery repaired; metal signs supplied for stamp and money order department; shelving in storage room of railway mail service. Extending wall and ceiling over stamp office; cover on letter drop boxes, fixing interior of letter drop boxes in vestibules. New hinges on closet door and new seat to toilet, fixing window blinds; repairing floor at sorting room in basement, hinges and bolt to double doors in vestibule; gutters cleared out. Brass signs for letter drops; clock for post office inspector, stipling glass on stamp office; five mail trucks painted, four racks for sack hangers supplied, setting up tables and cases in registration department; stand for pigeon-hole case; stationery cupboard for accountant's department, notice board supplied, nine steel cases A to L. Stair and gallery erected, carpet repaired for assistant postmaster; repairs to buzzer and lights in postmaster's office, repairs to truck, putting up shelves in postals parcels. Making set of pigeon-holes for registration department; roll top desk and chair supplied to post office inspector; temporary cases were removed from rented buildings at Christmas time and stored in general post office. Chair, table and desk supplied to post office inspector; 21 parcel cases and tables were made and installed at sub-postal station, partition screens repaired at registration department; oak table with cork top made for parcels, call bell renewed; office furniture, roll top desk, chairs, money order cabinet; paid orders and postal note desk supplied, filing cabinet supplied superintendent railway mail, cases for money order supplied.

Awnings for window of customs long room, temporary filing rack, customs record room, cash cage in long room, radiator installed in collector of customs room; counter with pigeon-holes built for lockers' room; moving record room, making counter and setting up same; 3 sections of hat and coat cupboards supplied; one set pigeon-holes, partitions taken out at end of long room, arches made over opening, rearranging stands, electric light and heating; 2 sets of pigeon-holes, made openings in counter screen, fitting brass grille wickets; cash cage enlarged, extending long room screen to full opening, making five wickets, filling in space over new filing cabinet in long room. Filing cabinet for collector of customs.

Fixing wash stand, pipe and curtain rings in Agricultural Department.

EXAMINING WAREHOUSE BUILDING.

Sinks fitted up, gas connections, etc., for testing. Oak table supplied for gaugers' room, extending gas pipes from one end of building to other; fixtures moved from rented building express office to new building, sliding door, bolts and latches. Eleva-

Public building, Lethbridge, Alta.

19—1915—iii—p. 64.

tor doors, etc., partition in gaugers' room, panel bottom and glass top; hose connection to boiler service pipe for gas, oiling floors, cement sidewalk laid, interior and exterior shades, window shades, repairs to heating apparatus, plumbing repairs, electric repairs, directory board supplied and signs painted; signs for office doors supplied, alterations to wire screen around elevator shaft on ground floor, saddle plates to elevator, column guards supplied and erected, plank driveway, awnings for examining warehouse.

SUB-POSTAL "B" STATION.

Panels cut out for glass and letter drop in Marine and Fisheries office. Panels cut out for glass and letter drop in Agricultural Department. Stools supplied Post Office Department. Fitting up tables and post office boxes, opening for 3 doors cut; door frames supplied, kalsomining walls and ceilings, wood revarnished, panel cut out and glass put in, tables, lounge and chairs supplied; directory board supplied and fixed, also lettered. Filing cabinet and desk supplied to hydrographical survey; cupboard supplied Health of Animals branch; window shades supplied, shelving, drawing board and linoleum for hydrographical survey; filing cabinet for weights and measures department, also rug and cork carpet linoleum for Health of Animals branch. Shelving and door panel for engineer of Public Works Department; desk and chair for Hydrographical Survey; wood panel cut out and glass substituted; supplied 28 window shades, table for letter press, plumbing repairs, electric wiring in Hydrographical Survey offices; electric wiring in Weights and Measures Department, floor of lavatories concreted, signs painted on windows, making partitions to lavatories; electric installation of 18 lights to sorting tables, two to lavatories, 8 to counter wicket and 9 chandeliers; post office fixtures supplied.

OLD POST OFFICE BUILDING.

Doors repaired, counter and grate supplied. Ventilating fan supplied for Assay office; plumbing repairs, filing cabinet supplied to gas and electricity inspector; electric repairs and rehanging and repairing windows, flag pole painted, also painted door of Assay office; coal chute repaired, frame for meter supplied, plastering repaired, walls and ceilings painted; set of cupboard supplied to Health of Animals branch; grille of Assay office painted, locks repaired.

EXPRESS OFFICE, HOWE ST. (Rented).

Plumbing repairs and repairs to chairs and tables, hat and coat cabinet, springs on doors and stove pipe repaired; rubbish carted away at removal to new Examining Warehouse, moving stoves to Post Office basement.

CAPTAIN EDDY'S OFFICE, EMPIRE BUILDING (Rented).

Cork linoleum supplied, desk and tilting chair supplied.

IMMIGRATION AGENT'S OFFICE.

Desk and chair supplied, office clock and transfer cases supplied.

FAIR WAGE OFFICER'S OFFICE.

Desk, chair and cabinet supplied.

VANCOUVER NORTH.

PUBLIC BUILDING.

Castings for furnace furnished, cement sidewalk and curbs laid; new glass for windows and 6 fire extinguishers supplied; metal sign for telegraph office supplied. Cement stamping block and linoleum supplied to post office department; painting street letter boxes and receptacles. Fitting up city hall for post office and moving to same. Linoleum, cabinet and chair supplied to postmaster, also a clock.

Works supervised by Wm. Henderson, resident architect, Victoria, B.C.

VERNON.

PUBLIC BUILDING.

Lighting clock on tower; screen on ground floor window; chimney raised 4 feet; hot water system installed; elevator extended; new window in staircase; fire escape erected; repairs to doors and windows and painting same. Plumbing and heating repairs; window shades supplied and erected; signs for examining warehouse; collector and long room supplied; clock supplied and installation of large clock; electrical and carpenter work for clock in tower. Garbage burner supplied and door springs; alteration to permit clock weights to go to ground floor; window shades supplied collector of customs; clock supplied to Post Office Department.

The chimney on the building has been raised four feet higher, the hoist extended to the attic ceiling; a window has been put into attic portion of staircase; wire netting with wood sash have been supplied to all the windows.

VICTORIA.

DRILL HALL.

On January 21, 1914, a contract was entered into for the construction of this building, site of which is on a plot of ground bounded by Bay, Douglas, Field and McBride streets; measurement of building, 188 feet frontage and 261 feet deep, 3 stories and band loft. Foundation and footings for steel columns are of reinforced concrete to ground level. Basement is excavated only in part having gymnasium, 2 rifle ranges, swimming tank and heating chamber; exterior walls and buttresses and caps of walls are of concrete and stone string courses, stone keys, stone sills and lintels and brick walls. First floor has main entrance, orderly room, O.C. artillery, adjutant O.C., infantry adjutant, campaigner's rooms, toilets, 7 armouries, corps of guides' field ambulance, meeting room, D.O.C.'s office, medical officer, 6-inch breach-loading gun room, field gun armoury, repair shop and drill hall. On second floor and lobby, alcove, infantry officers' mess room, lounge room, reading room, cadets' armoury, cadets' orderly room, infantry men's reading room, canteen, infantry sergeants' room, kitchen, artillery mess, sergeants' reading room, army service corps' armoury, orderly rooms, store supplies, signallers' orderly room, canteen, artillery men's reading room. There is a wide gallery on three sides overlooking drill hall. Third floor plan shows three caretakers' suites, consisting of four bedrooms, sitting room, kitchen and bath room (in each suite); fourth floor is used for a band room. The drill hall is covered with arched steel truss supported on granite blocks, the flat roof portion is also truss supported and the roof of hall is covered with galvanized iron. Flooring in bath rooms, toilet rooms and kitchen is in terrazza marble 1-inch thick; drill hall floor and three entrances have a 12-inch trough gutter of concrete and the whole area with patent Val de Traverse asphalt powder. The building is heated by two tubular steam boilers placed in the boiler room and radiators throughout the building. Modern plumbing is also installed and the building lighted by electricity.

Plans, etc., prepared and work supervised by W. R. Wilson, architect, Victoria, B.C.

Clerk of works, Geo. Jeeves.

Contractors, Parfit Bros.

PUBLIC BUILDING.

Taking down partition in post office and general repairs effected. Repairs to elevator, stone porch at new entrance with granite steps; cutting door, electric repairs and plumbing repairs, also cluster lights installed; post office floor repaired. Adding new sections to heating apparatus, supplying and erecting oak screen in lobby; flag pole painted also fire escapes, painting iron rail on parapet wall and entrance gate to courtyard; gutter cleared out, guards on control of elevator. New passenger elevator installed; stone piers taken down and steel piers fixed in position. Glazing 2 lights and supplying glass. Purchasing agent's office painted and cleaned; heating apparatus repaired; sectional bookcase supplied. Fumigating apparatus supplied and installed at wharf.

Steel lockers supplied the post office, also window shades, stamping machine oil, desk chair and pigeon-hole case for post office inspector; lock boxes repaired, steel lockers supplied post office, glass for post office boxes, electric lamps for postmaster, brass plate for letter drop, tools for post office; steel safe for registration department and wire basket, linoleum for sorting office and trucks were supplied, also 6 stools, roll top desk and chair supplied for dead letter office; tilter chair for postmaster, carpet square, linoleum, rug, desk chairs and table supplied postmaster; desk and chair supplied to post office, also bag racks.

Shelving was supplied for King's customs warehouse, electric lamp for appraiser, safe repaired, tools supplied surveyor of customs; repairs to bells and wires and new batteries installed, desk and chair supplied to appraiser, also linoleum, cases and pigeon-hole sets, filing cabinet for collector of customs, repaired one light; tables, desk and chairs for surveyor of customs supplied.

Plumbing repairs, desk, chairs were supplied Inspector of Inland Revenue.

Resident architect's typewriter repaired, also tilting chair supplied; office furniture supplied purchasing agent and also to Engineer McLachlan, and tables, chairs, cupboards, draughting table, stools, cabinet for maps for Engineer McLachlan; steel filing cabinet for resident architect's office.

Curtains supplied to Dominion savings bank, also table with hardwood top, library table for assistant Receiver General, also trucks.

OLD POST OFFICE BUILDING.

Repairs to plumbing, altering first floor wireless office and wreck commissioners, cleaning blocked sewer and W.C., painting flag pole, cleaning chimney and stove pipes, grate, sheet, thimble and replacing stove in wireless department; blue point cabinet to wireless office, also stove pipes and steel cabinet, tables, chairs, wash stand and screen, tables and chairs supplied to Marine Department.

TEMPORARY EXAMINING WAREHOUSE (Rented).

Plumbing repairs, electric wiring done and electrical repairs to heating circuit; gas stove fitted up; installing buzzer and wiring for same; fixing table for stamps for appraiser's office.

IMMIGRATION DETENTION HOSPITAL.

Electric wiring repairs, general repairs to locks, doors and windows, repairs to iron windows, plumbing, ladder, locks and bells repaired; painting flag pole. Jarvis felter supplied, also counters with drawers and cupboards, also linoleum supplied, fence repaired and general repairs to chairs, tables and drawers.

OLD CUSTOM HOUSE BUILDING.

Making store room in basement, steel flexible rope for flag halyard and labour, etc. Alterations to plumbing; Indian inspector's office wired for electric lights; screen supplied, flag pole painted, gas cock supplied, chimney cleaned and windows reglazed.

DISTRICT ENGINEER'S OFFICE, BELMONT BUILDING (Rented).

A new glass put in door, etc.

OBSERVATORY.

A contract for this building was entered into on August 15, 1913, site of which is on Gonzales Heights, and is built on the solid rock; the building measures 45 by 45 feet and consists of basement and ground floors and observatory dome; the foundation walls, floors and roof are of concrete and a solid concrete pillar independent of the other structure rests on the rack and on it is fitted the teleseope. Basement is divided into seismograph room, photo room, furnace room, corridor, etc. Ground floor has clock chronometer room, observers' rooms, main room, vault hall and transit room; the roof is flat and covered with felt, tar and gravel. There is a steel observation mast with 4 guy wires to same. Modern plumbing and ventilation is installed and a system of hot water heating with radiators in different rooms and the building is lighted by electricity.

The construction was completed during the fiscal year.

Plans and specification prepared by this department.

Clerk of works, Edward Bragg.

Contractor, G. C. Hurrell.

WILLIAM HEAD.

QUARANTINE STATION.

A contract was entered into on January 7, 1913, for the erection and completion of a "recreation hall".

A contract entered into on January 7, 1913, for the erection and completion of an "addition to first-class passenger building".

A contract entered into on January 7, 1913, for the erection and completion of a "bath house" for first-class passengers.

A contract was entered into January 7, 1913, for the erection and completion of steward's quarters.

All the foregoing were completed during the fiscal year.

Three flag poles were painted.

During the quarantine of ss. *Monteagle* temporary lavatories were put up and connected to sewers, water closets and baths at first-class passenger building, partitions and shelving put up in store room; refrigerator repaired, tents erected, tables and benches made for second-class building; repairs to plumbing were made and clearing sewers at second-class Chinese and Japanese buildings. Two Nugget steel ranges and one French range supplied; water closet installed on small wharf, boiler and engine roof repaired. Walls and ceilings of power house painted; interior of retort and sulphur plant painted; sundry roofs at power house repaired and ventilators installed; firemen's quarters repaired and painted. Auto garage for Medical Superintendent erected; janitory of first-class passenger building painted with enamel paint. Two porches erected over cellar steps of addition to first-class building; 10 ventilators supplied and installed in roof of first-class building. Blankets, pillows, pillow cases, quilts, sheets, and mattresses supplied; new poles for electric light and telephone wires erected, wires transferred and old poles taken down.

New switch board for telephone service supplied and installed; 30 special 500-watt tungsten lamps with pole and brackets and reflectors supplied to replace old arc lamps.

Fences erected at isolation hospital watchman's residence and general repairs to fence enclosing grounds; partition changed in assistant medical superintendent's residence; shelves, drawers and work table supplied and fitted up in electrician's work shop.

Verandah with cement floor constructed at smallpox hospital, slated to match roof. Shiplap floor laid in attic of medical superintendent's residence, small cupboard built in bedroom. Corrugated iron tank house 8 by 8 by 6·6 for gasoline; 2 gasoline tanks installed therein. Lumber shed constructed under at large wharf interior; walls and ceilings of engineer's residence, laundry and steward's residence, part of isolation hospital, electrician's residence, office building, club room and guard house were painted. Office building, watchman's residence, engineer's residence, electrician's residence, laboratory building, first-class passenger's building, Chinese building, Japanese building, all brick veneered with concrete foundation and steps, roofs slated, all woodwork repaired or renewed where necessary, and the whole painted; flashings and valleys and down pipes renewed where required; galvanized iron hips and wood ridge rolls put on. Power house walls, where not solid brick, studding was removed and solid walls erected, roof slated and all woodenwork renewed or repaired, all flashings, valleys and down pipes renewed where required, galvanized iron hips and ridge rolls put on.

Assistant medical building all woodwork repaired and renewed where necessary, and whole painted, all flashings, valleys and down pipes renewed where necessary and galvanized iron hips and ridge rolls put on. Addition to steward's residence; roofs slated and whole brick veneered, plumbing altered, new doors and windows put in, replacing old plaster, raising chimney, new grates in fireplace. Painting interior and exterior woodwork; new waiting room for ladies was erected, solid brick walls and slated roof, open fireplace at each end, concrete steps and sidewalk with enclosed passageway to verandah of first-class passenger bath house; large battery room at end of the building with cement concrete floor. Oil and sulphur house was erected, brick walls, slated roof; extension to power house for mails, baggage and gentlemen's waiting room erected; brick walls and piers, cement concrete walls from boiler room, roof slated; sixty 240-ampere lighting accumulators, 2 regulators for same supplied, 52 cells, iron clad oxide battery and switchboard supplied and installed in ss. *Madge*, quarantine tender, 6 copper sprays and connections for disinfecting bath supplied. Electric light engine repaired, crane-shaft governor, crank, bearings, main bearings and magnet shaft bearings overhauled. Cold storage building and plant complete erected and installed. Medical superintendent's residence painted inside and outside; floor waxed and polished; broken plaster repaired, bath room fitted up in attic, clothes room fitted up with cupboard and chest of drawers; wash basin fitted up in office; verandah porch repaired and fitted into conservatory.

Interior second class passenger building: walls and ceiling painted, also broken plaster repaired, 4 cast-iron enamel baths, 9 low-down w.c.'s, 4 porcelain wash basins; three jacket heaters and 2 boilers installed and existing sewer extended for same; 9 cabins and one bathroom fitted up in each of the 4 wards to provide temporarily for possible increase in second-class passengers; 30 porcelain wash basins installed in first-class passenger building, wastes renewed, water pipes disconnected, existing basins removed, water from tanks disconnected and connected to main with all carpenter work necessary; road roller supplied: repairs to gasoline engine; chairs, tables, etc., supplied first-class building.

Work supervised by Wm. Henderson, resident architect, Victoria, B.C.

STATEMENT OF LEASES

OF

BUILDINGS AND GROUNDS OCCUPIED BY THE GOVERNMENT

AND

PAID FOR BY THE DEPARTMENT OF PUBLIC WORKS

BY

J. G. TAYLOR

October 20, 1914.

E. L. Horwood, Esq.,
Chief Architect, Public Works Department,
Ottawa.

Dear Sir,—Annexed please find details of arrangements of buildings and sites for which rents are paid by Public Works Department, also index of names of lessors.

This list shows that 273 places are leased—an increase of 121 over the number shown in my report of two years ago. The total rental paid for these 273 places amounts to $630,195.27 per year. Of this sum $47,706.40 is paid for premises and sites in Calgary, $48,720.42 for premises in Montreal, $367,733.06 for premises in Ottawa, $8,595 for premises in Quebec, $16,869.96 for premises in Toronto, $13,765.63 for premises in Vancouver, and $17,637.66 for premises in Winnipeg.

Yours truly,

J. G. TAYLOR.

INDEX NAMES OF LESSORS.

Alexander Building, Ltd.	Montreal	No. 92
Allan, William Anderson & Sandford Hall Fleming	Ottawa	117
Amble, John Ed.	Nelson, B.C.	107
Alsask, Town of	Alsask, Sask.	1
Ashdown Hardware Co., Ltd., J. H.	Winnipeg	261
Baker, Frederic Charles	Prince Albert, Sask.	177
Bank of Hamilton	Port Arthur, Ont.	175
Bank of Nova Scotia	Windsor, N.S.	259
Bank of Toronto	Kingston, Ont.	74
Barrett, Mrs. Mary A.	Toronto	224
Bate Realty Corporation, Sir Henry N.	Ottawa	118
" "	"	119
" "	"	120
Bate & Sons, Ltd., H. N.	"	121
Battleford, Town of	Battleford, Sask.	7
Bawlf, N.	Winnipeg	262
"	"	263
"	"	264
"	"	265
Beardmore & Co.	Montreal	93
Bell Telephone Co.	Ottawa	122
Belmont Buildings, Ltd.	Victoria, B.C.	248
" "	"	249
" "	"	250
Bergeron, J. S.	Quebec	181
" J. S. & A. G Verret	"	182
Bilsky, Alexander M.	Cobalt	34
Birks & Sons, Ltd., Henry	Ottawa	123
Birks, Wm. Massey, John Henry Birks and Gerald Walker Birks	Vancouver	238
Blache, Cordelia, Curatrix to Alfred Dalbeck	Montreal	94
Blackburn, Russell	Ottawa	124
Blackburn, R. L. & R.	"	125
" "	"	126
" "	"	127
" "	"	128
Blenheim, Town of	Blenheim, Ont.	11
Blow & Co., W. R.	Calgary	13
Booth, C. Jackson & J. A. D. Holbrook	Ottawa	129
Beudreau, Timothee E.	Edmundston, N.B.	38
Boyd, Wm. James	Winnipeg	266
" "	"	267
" "	"	268
Brennan, John Charles	Ottawa	130
" "	"	131
Brown, Julius A.	Vancouver	239
Bruner, Dr. P. C.	Calgary	14
Bryson Realty Co., Ltd.	Ottawa	132
Bunnell, John H.	Moosejaw	104
Buxton, H. H.	Deloraine, Man.	36
Byrne, Miss Eveleen	Fredericton, N.B.	48
Bytown & Suburb Lands Co., Ltd.	Ottawa	133
Cameron, John H. and Annie M. Johnstone	Saskatoon, Sask.	212
Canada Life Assurance Co., Ltd.	Calgary	15
" "	"	16
" "	"	17
Canadian Bank of Commerce	Joliette, P.Q.	64
" "	Revelstoke, B.C.	193
" "	"	194
" "	St. John, N.B.	206
Canadian Northern Railway	Edmonton, Alta.	39
" "	North Battleford	109
" "	Vermilion, Alta.	247

Canadian Pacific Railway	Kerrobert, Sask.	No. 73
" "	Montreal	95
" "	Nomining, P.Q.	108
" "	North Portal, Sask.	111
" "	Vancouver	240
" "	"	241
" "	"	242
" "	Victoria, B.C.	251
" "	Wilkie, Sask.	258
" "	Winnipeg	269
Capital Storage Co., Ltd.	Ottawa	134
Carter, Archibald T.	Orillia, Ont.	114
Carter, Hall, Aldinger Co., Ltd.	Winnipeg	271
Charters, Chas. & John Liggett	Montreal	96
Chatelaine, Alexandre	L'Orignal, Ont.	83
Clark, E. W.	Ottawa	135
Confederation Life Association	Toronto	225
Cooper, C. W.	Winnipeg	270
Coote, John C.	London, Ont.	81
Costello, Miss E.	Calgary	18
Crepeau, Maxine	St. Felix de Valois	200
Cuthbertson, E. H.	Fort William, Ont.	45
D. & A. Printing and Engraving Co., Limited	Medicine Hat, Alta.	87
Dauphin, Mrs. Marie Amanda	Joliette, P.Q.	66
De la Salle, Geo.	Swift Current, Sask.	222
Delorme, Simeon, Estate of	Montreal	97
Dennis Realty Corporation	Halifax, N.S.	56
" "	"	57
Dickinson, Wm.	North Battleford, Sask.	110
Dionne, Thomas	Cacouna, P.Q.	12
Dominion Coal Co.	Glace Bay, C.B., N.S.	50
Dominion Fish and Fruit Co., Ltd.	Quebec, P.Q.	183
Dominion Trust Co. of Canada	Montreal	98
Dorchester Realties, Ltd.	"	99
" "	"	100
Duford & Charleson	Ottawa	136
Dunlap, Geo. Wm.	Vancouver, B.C.	244
Eastern Canada Savings and Loan Company	Halifax, N.S.	58
Entwhistle, Village of	Entwhistle, Alta.	43
Financier & Arabesque Co., Ltd.	Asbestos, P.Q.	3
Finnie, D. M. & W. D. Morris	Ottawa	137
Fleming, Thomas	"	138
Fletcher, J. & A. S. McLean	Grand Prairie, Alta.	52
Foret, Gebriel E.	Regina, Sask.	192
Fortier Bros.	Annapolis Royal	2
Forster, H. T. W.	Medicine Hat, Alta.	88
Foy, Geo. J., Ltd.	Toronto, Ont.	226
" "	"	227
Frank, Leonard	Old Alberni, B.C.	113
Fraser, Norman St. Clair	Moosejaw, Sask.	105
Garland, John M.	Ottawa	139
Garland, John J.	Portage la Prairie	174
Germain, M. M.	Quebec, P.Q.	184
Giroux, J. O.	Grouard, Alta.	54
Governor and Company of Adventurers of England	Athabaska Landing, Alta.	5
Graham, Geo. A. & J. T. Horne	Fort William, Ont.	46
Grand Trunk Pacific Development Company	Unity, Sask.	237
Grand Trunk Railway Co.	Berlin, Ont.	9
" "	Toronto, Ont.	228
" "	"	229
" "	"	230
" "	Victoriaville, P.Q.	253
Green, Mary Catherine, wife of T. D. Green	Rocky Mountain	197
Gougeon, Julie	Montreal	101
"	"	102
Graham Bros.	Ottawa	165
Hamilton, Mrs. Robert	Vancouver, B.C.	245
" "	"	246
Hance, Geo. B.	Toronto, Ont.	231
Hanna, J. E.	Ottawa	140
Heintzman Co.	Windsor, Ont.	260
Herchemer Committee of person and Estate	Kingston, Ont.	75
Higginbotham, John David	Lethbridge	79
Hope & Son, James	Ottawa	141

SESSIONAL PAPER No. 19

Howell, Samuel, Executors and Trustees	Ottawa	No. 142
Huckvale, Walter and Sidney Tom Hooper	Medicine Hat, Alta	89
Hull & Co., W. R.	Lethbridge, Alta	80
Humboldt Realty Co.	Humboldt, Sask.	61
Imperial Bank	Ingersoll, Ont.	63
Imperial Canadian Trust Company	Saskatoon, Sask.	213
" " "	"	214
Imperial Realty Co., Ltd.	Ottawa, Ont.	143
Independent Securities Ltd.	Kamloops, B.C.	71
Inland Express Co., Ltd.	Ashcroft, B.C.	4
Irvine & Co., J. A.	Calgary, Alta.	19
"	"	20
"	"	21
Jack, John	Quebec, P.Q.	185
Jackson, John Gill and Lisgar Clark & O. G. Johns	Cobourg, Ont.	35
Jakes, Geo. L.	Merrickvale, Ont.	90
Jarman, Frank	Ottawa	144
Johnson, David	St. Stephen, N.B.	211
Johnson, J. A.	Swift Current, Sask.	221
Journal Printing Co., Ltd.	Ottawa, Ont.	146
" "	"	147
" "	"	148
Kamloops Building Syndicate	Kamloops, B.C.	72
Knights of Columbus Council 1001	Three Rivers	223
Labelle, Patrick	Ottawa, Ont.	149
Lamb, J. E. & W. A.	"	150
Lachapelle, Euclide	Joliette, P.Q.	67
"	"	68
Larochelle, Alfred	Black Lake, P.Q.	10
Laurin, J. P.	Ottawa, Ont.	151
Leduc, J. Lionel	Beauharnois	8
Lepine, Magloire	Maissoneuve, P.Q.	84
Levasseur, Kathleen	Pincher Creek, Alta.	173
Levesque, Thos. J.	Clair, N.B.	33
Lord Furniture Co.	Ottawa, Ont.	152
Lyall, P. & Sons Construction Co., Ltd.	Longue Point, P.Q.	82
Martin & Co., W. H.	Ottawa, Ont.	155
Merryfield, Jos. Edward	Prince Rupert, B.C.	179
Michaud, Telesphore	St. Gabriel de Brandon, P.Q.	204
Mills & Son, A. K.	Ottawa, Ont.	157
Moisau, Mrs. P. L.	St. Georges de Beauce, P.Q.	202
Montreal, City of	Montreal, P.Q.	103
Moore Estate, Christopher	Orillia, Ont.	115
Moosejaw, City Clerk of	Moosejaw, Sask.	106
Morris, William Dowler	Ottawa, Ont.	158
Mullin, Alexander	Toronto, Ont.	233
Munro, C. B.	Calgary, Alta.	22
Murray, Vickers & Moffat	Fort William, Ont.	47
McCall, Mrs. Cath.	Westmount, P.Q.	256
McCartney Bros.	Midland, Ont.	91
McConnell, Wm.	Landsdowne, Ont.	77
McCready, M. S., etc.	Calgary, Alta.	23
McDermott, A. J. C.	Victoria, B.C.	252
McDonald, Mrs. Annie	Calgary, Alta.	24
McFarlane, Wm.	Transcona, Man.	235
McKenzie & Mann	Gravelbourg, Sask.	53
McKenzie, Mann Co., Ltd.	Wadena, Sask.	255
McKinnon, Dr. Frederick	Ottawa, Ont.	153
McMillan, Andrew & Wm. Costain	Toronto, Ont.	232
McNeill, E. R. & R. G. Stewart	Ottawa, Ont.	154
New Brunswick Telephone Co.	Fairville, N.B.	44
Newton, Frederick Young	Roblin, Man.	196
Nichols, Geo. E. E. & M. Edith L. Lynch	Digby, N.S.	37
Northern B. C. Development Co.	Prince Rupert, B.C.	180
O'Connor & Sibbald	Prince Albert, Sask.	178
Ormshy, A. W.	Edmonton, Alta.	40
Osment, Mrs. L. A.	Indian Head, Sask.	62
O'Sullivan, Patrick	Calgary, Alta.	25
Ottawa Building Co.	Ottawa, Ont.	159
"	"	160
"	"	161
Ottawa Improvement Co., Ltd.	"	162
Ottawa Masonic Temple Ltd.	"	156
Ottawa Terminals Railway Co.	"	163

Page, E. J. L. & James R. Sangster	Sherbrooke, P.Q.	No. 218
Paris, Mrs. O.	Quebec, P.Q.	186
Parsons, L. C.	Maple Creek, Sask.	85
Patterson, J. O.	Grand Prairie	51
Pearson, Eliza Ann	Ottawa, Ont.	164
Perley, Geo. Halsey	"	165
Pheasey, Geo. & Chas. C. Batson	Edmonton, Alta.	41
Pitts, Herman H.	Fredericton, N.B.	49
Polly, Thos. J.	Kingston, Ont.	76
Potter, A. E.	Edmonton, Alta	42
Preville, Mrs. Joseph	Joliette, P.Q.	69
Quebec Buildings Ltd.	Ottawa, Ont.	166
Quebec Central Railway	Sherbrooke, P.Q.	219
Quebec Railway Light, Heat and Power Company	Quebec, P.Q.	187
Rea Co. Ltd, A. E.	Ottawa, Ont.	167
Revillion Bros.	Athabaska Landing, Alta.	6
Rice, Thos. C.	Weymouth, N.S.	257
Richelieu and Ontario Navigation Co.	Quebec, P.Q.	188
" "	"	189
Rideau Club	Ottawa, Ont.	168
Ridgetown, Town of	Ridgetown, Ont.	195
Rivest, Jos. C. L.	Joliette, P.Q.	70
Robinson, Hiram	Ottawa, Ont.	169
Roblin, Sir R. P.	Winnipeg, Man.	272
Rochester, J. L.	Ottawa, Ont.	145
Rosin House Hotel Co.	Toronto, Ont.	234
Rothwell, Benjamin E.	Swan River, Man.	220
Roy, Ozite	St. Leonards, N.B.	209
Royal Bank of Canada	Charlottetown, P.E.I.	32
" "	Port Arthur, Ont.	176
Ryan, Geo. B., etc.	Calgary, Alta.	26
Scott, Arthur E.	Quebec, P.Q.	190
Sharples, John	Calgary, Alta.	27
Sinclair, Wm., M.D.	Le Pas, Man.	78
Skinner Ltd., T. J. S.	Calgary, Alta.	28
Slater Estate	Ottawa, Ont.	170
Slater, Robert Nicholas	"	171
Stewart, Wm.	Grouard, Alta.	55
Stroud, W. R.	Ottawa, Ont.	172
Swales, Clara Jane	Hamilton, Ont.	60
St. Anne de Bellevue Municipality of	St. Anne de Bellevue	198
St. Eustache, Village of	St. Eustache, P.Q.	199
St. John, City of	St. John, N.B.	204
"	"	207
"	"	208
St. John Board of Trade	"	205
St. Rose, Village of	St. Rose, P.Q.	210
Thomas, R. C.	Calgary, Alta.	29
"	"	30
"	"	31
Thompson, Chester	Saskatoon, Sask.	215
Trois Pistoles, Town of	Trois Pistoles, P.Q.	236
Turcotte, J. Baptiste	St. Jean de Matha, P.Q.	203
Ulric, J. and J. A. Chaput	Joliette, P.Q.	65
Vancouver, City of	Vancouver, B.C.	243
Virden, Man. School District	Virden, Man.	254
Walker, Dr. James, Estate of	Halifax, N.S.	59
White, Miss Margaret	Quebec, P.Q.	191
Willoughby, J. H. C. and A. J. E. Sumner	Saskatoon, Sask.	216
Wilson Bros.	"	217
Winnipeg Joint Terminals	Winnipeg, Man.	273
Woon, Jabez	Orillia, Ont.	116
Wylie, D. J.	Maple Creek, Sask.	86
Y. M. C. A.	North Sydney	112

No. 1.—*Alsask, Sask.*.. .. .. Rink waiting rooms.
Occupied by.. .. .. Immigration Department.
Lessor.. .. .. Town of Alsask.
Term expires.. .. .. 1st October, 1914.
Rent.. .. .. $15 per month.

No. 2.—*Annapolis Royal, N.S.*.. .. .. Two rooms on ground floor of lessors' building on St. George street.
Occupied by .. .. Inspector of British Immigrant children and of Immigration Agencies for Maritime Provinces.
Lessors.. .. .. Fortier Bros.
Term expires.. .. .. 1st September, 1915, and renewable for another year on same terms and conditions.
Rent.. .. .. $15 per month.
Lessors pay all taxes, including water, heating, lighting and cleaning.

No. 3.—*Asbestos, Que.*
Occupied by .. .. Post Office.
Lessor.. .. .. Financier and Arabesque Co., Ltd.
Term expires.. .. .. Lease expired April 5, 1912; we are now tenants from year to year.
Rent.. .. .. $180 per annum, $105 of which is paid by Government and $75 by postmaster.
Lessor pays all taxes, heating and lighting.

No. 4.—*Ashcroft, B.C.*.. .. .. Storeroom in building owned by James Haddock, of Ashcroft, B.C.
Occupied by .. .. Storeroom for mail.
Lessor.. .. .. Inland Express Co., Ltd.
Term expires.. .. .. Monthly. This is a sub-lease.
Rent.. .. .. $25 per month.
Lessor pays heat, light and caretaking.

No. 5.—*Athabaska, Alta.*.. .. .. Piece of land fronting on Athabaska river, 100 by 150 feet.
Occupied by .. .. Immigration hall.
Lessor.. .. .. The Governor and Company of Adventurers of England trading into Hudson bay.
Term expires.. .. .. June 1, 1918.
Rent.. .. .. $1 per annum.
Lessors stipulate that no lumber shall be cut.

No. 6.—*Athabaska, Alta.*.. .. .. Space in warehouse.
Occupied by .. .. Post Office mail storage.
Lessor.. .. .. Revillion Bros.
Term expires.. .. .. At one month's notice.
Rent.. .. .. $5 per month.

No. 7.—*Battleford*.. .. .. Lots 41 and 42 South Twenty-four street, west of Central avenue.
Occupied by .. .. Immigration.
Lessor.. .. .. Town of Battleford.
Term expires.. .. .. April 29, 1919.
Rent.. .. .. Amount of municipal taxes.

No. 8.—*Beauharnois*.. .. .. Two rooms and one toilet room on west side of lessors building, southeast corner of Ellice and Brown streets.
Occupied by .. .. Post Office.
Lessor.. .. .. J. Lionel Leduc.
Term expires.. .. .. May 1, 1917.
Rent.. .. .. $350 per annum, of which Public Works Department pays $225 and Post Office Department pays $125.
Lessor pays all taxes, street sprinkling, heating, removal of snow and lighting.

No. 9.—Berlin, Ont... Part of station building, having an area of 138 square feet.
Occupied by .. Sorting and stamping of letters and postal matter mailed at Berlin station, etc.
Lessor.. Grand Trunk Railway Company.
Term expires.. Year to year from April 1, 1914.
Rent.. $50 per annum.
Lessors pay heating and lighting.

No. 10.—Black Lake, P.Q... Part of premises owned by lessor, 22 by 26 feet northwest side Notre Dame street.
Occupied by .. Post Office.
Lessor.. Alfred Larochelle.
Term expires.. December 28, 1914.
Rent.. $300 per annum of which Government pays $150 and Postmaster $150.
Lessor pays taxes, heat and light and removes snow from roof.

No. 11.—Blenheim, Ont... Portion of townhall building.
Occupied by .. Post Office.
Lessor.. Town of Blenheim.
Term expires.. April 1, 1915.
Rent.. $350 per annum of which Government pays $200 and Postmaster $150.
Lessors pay taxes, water, heating, lighting and cleaning.

No. 12.—Cacouna, P.Q...
Occupied by .. Post Office.
Lessor.. Thomas Dionne.
Term expires.. July 1, 1915.
Rent.. $100 per annum, of which Government pays $50 and Postmaster $50.
Lessor pays taxes, removal of snow- heat, light and cleaning.

No. 13.—Calgary, Alta... 6,715 square feet in Blow building at 85 cents; also premises in basement, 660 square feet at 25 cents per square foot.
Occupied by.. Commissioner of Irrigation.
Lessor.. T. H. Blow—W. R. Blow & Co., Attorneys.
Term expires.. March 31, 1916.
Rent.. $5,872.75 per annum.
Lessor pays taxes, water and heat.

No. 14.—Calgary, Alta... Four rooms in Bruner block fronting on 13th avenue and one dark room in rear for entrance making 744 square feet on 3rd floor of building corner 13th avenue and 1st street west.
Occupied by.. Railway Commission.
Lessor.. Sutherland Realty Co., Dr. P. C. Bruner authorized to collect rent.
Term expires.. April 18, 1915.
Rent.. $100 per month.
Lessors pay taxes, water, and heat and Lessee pays lighting.

No. 15.—Calgary, Alta... Room 51 to 54, Canada Life building and half vault.
Occupied by.. Inland Revenue.
Lessor.. Canada Life Assurance Co., Ltd.
Term expires.. June 1, 1914, with privilege of vacating any time after 3 years on giving three months' notice in writing.
Rent.. $315 per month.
Lessor pays taxes, water, heating, janitor and elevator service.
Lessee pays lighting.

No. 16.—Calgary, Alta... Rooms 41 to 44 inclusive in Canada Life building.
Occupied by.. Post Office Inspector.
Lessor.. Canada Life Assurance Co., Ltd.
Term expires.. January 1, 1919, with privilege of removing any time after 3 years on giving three months' notice in writing.
Rent.. $315 per month.
Lessor pays taxes, water, heating, janitor and elevator service.
Lessee pays lighting.

Public building, Moosejaw, Sask.

No. 17.—Calgary, Alta... .. .. Rooms 55 to 58, Canada Life building.
Occupied by.. .. .. Railway Mail.
Lessor.. .. .. Canada Life Assurance Co., Ltd.
Term expires.. .. .. January 1, 1919, with privilege of vacating any time after 3 years on giving three months' notice in writing.
Rent.. .. .. $222 per month.
Lessor pays taxes, water, heating, janitor and elevator service.
Lessee pays lighting.

No. 18.—Calgary, Alta... .. ..
Occupied by.. .. .. Weights and Measures.
Lessor.. .. .. Miss E. Costello.
Term expires.. .. .. From month to month.
Rent.. .. .. $30 per month.
Lessor pays for heating.

No. 19.—Calgary, Alta... .. .. Premises on 6th floor, Leeson-Lineham Block (Rooms 601 to 613).
Occupied by.. .. .. Lands Office.
Lessor.. .. .. J. A. Irvine & Co.
Term expires.. .. .. April 15, 1915, with option of renewal for 1, 2, or 3 years on three months' notice at end of each year.
Rent.. .. .. $300 per month.
Lessors pay taxes, water, heating and elevator service.
Lessee pays lighting and janitor.

No. 20.—Calgary, Alta... .. .. Rooms 412 and 413 Leeson-Lineham block.
Occupied by.. .. .. Lands Officers.
Lessor.. .. .. J. A. Irvine & Co.
Term expires.. .. .. From month to month.
Rent.. .. .. $40 per month.

No. 21.—Calgary, Alta... .. .. Room 411 Leeson-Lineham block.
Occupied by.. .. .. Inspector of Customs.
Lessor.. .. .. J. A. Irvine & Co.
Term expires.. .. .. By notice on either side of one month.
Rent.. .. .. $30 per month.

No. 22.—Calgary, Alta... .. .. Lots 16 and 17 and the easterly 10 feet of Lot 15 (with the exception of the site of Cottage) in block 30, section 16 in the city of Calgary.
Occupied by.. .. .. Temporary warehouse for storage purposes.
Lessor.. .. .. C. B. Munro.
Term expires.. .. .. February 22, 1915.
Rent.. .. .. $45 per month.

No. 23 Calgary, Alta... .. .. Room 211 and 220 and vault on second floor Dominion Bank building, corner Second street east and Eighth avenue.
Occupied by.. .. .. Customs Long Room and Collector of Customs.
Lessor.. .. .. M. S. McCarthy, J. M. Carson and J. E. Macleod.
Term expires.. .. .. March 31, 1915.
Rent.. .. .. $250 per month.
Lessor pays taxes, water and heat.

No. 24.—Calgary, Alta... .. .. East half of David block, ground floor and use of vault and toilets.
Occupied by.. .. .. Examining warehouse.
Lessor.. .. .. Mrs. Annie McDonald.
Term expires.. .. .. January 20, 1915.
Rent.. .. .. $500 per month.
Lessor pays water and heating.

No. 25.—Calgary, Alta... .. .. Store on ground floor of building known as Sullivan block.
Occupied by.. .. .. Customs Express.
Lessor.. .. .. Patrick O'Sullivan.
Term expires.. .. .. May 1, 1915, with right to continue from month to month.
Rent.. .. .. $125 per month.
Lessor pays taxes, water, heating.

No. 26.—*Calgary, Alta*.. .. .. Lots 17, 18, 19 and 20 block 52, section 15, plan "A," 100 feet on 7th avenue by 130 feet on 2nd street east.
Occupied by.. .. .. Temporary building for Post Office.
Lessors.. .. .. George B. Ryan, Helen J. Raymond, John Moody, Geo. McAllister, Walter Sharpe, Henry Knight, Malcolm D. Geedes & Herbert T. Sheffield, Geedes & Sheffield, collecting agents.
Term expires.. .. .. October 23, 1915.
Rent.. .. .. $8,750 per annum.
Lessors pay taxes and water.

No. 27.—*Calgary, Alta*.. .. .. One store on ground floor of Westminster block, 1st street east.
Occupied by.. .. .. Customs Mail Parcels.
Lessor.. .. .. John Sharples.
Term expires.. .. .. April 1, 1915, with option of renewal on same terms by giving notice after 9 months' occupancy which was February 21, 1914.
Rent.. .. .. $125 per month.
Lessor pays taxes, water, heating.
Lessee pays lighting and janitor.

No. 28.—*Calgary, Alta*.. .. .. Rooms 1 to 6 inclusive Armstrong block, Calgary.
Occupied by.. .. .. Seeds Superintendent.
Lessor.. .. .. T. J. S. Skinner, Ltd.
Term expires.. .. .. Monthly.
Rent.. .. .. $85 per month.

No. 29.—*Calgary, Alta*.. .. .. Six rooms on second floor Thomas block, Nos. 7, 8, 9, 10, 11 and 12, 2,053⅓ square feet at 85 cents per square foot.
Occupied by.. .. .. Topographical Survey.
Lessor.. .. .. R. C. Thomas.
Term expires.. .. .. April 1, 1915, and thereafter from month to month, one month's notice in writing to be given by lessors.
Rent.. .. .. $145.45 per month.
Lessor pays taxes, water, heat and provides elevator service.

No. 30.—*Calgary, Alta*.. .. .. Office in No. 14 Cadogan block, corner 8th avenue and 2nd street.
Occupied by.. .. .. Inspector of gas and electricity.
Lessor.. .. .. R. C. Thomas.
Term expires.. .. .. Monthly.
Rent.. .. .. $35 per month.
Lessor pays heating.

No. 31.—*Calgary, Alta*.. .. .. Rooms 28, 29, 30 and 31 in second floor of Thomas block.
Occupied by.. .. .. Forestry Department.
Lessor.. .. .. R. C. Thomas.
Term expires.. .. .. On rooms 28 and 29 lease expires April 4, 1915, and rooms 30 and 31 lease expires June 20, 1915.
Rent.. .. .. $130 per month.
Lessor pays taxes, water, heating and gives free use of elevator.
Lessee pays for cleaning.

No. 32.—*Charlottetown, P.E.I*.. .. .. Two rooms in Royal Bank building.
Occupied by.. .. .. Publicity agent, Immigration Department.
Lessor.. .. .. Royal Bank of Canada.
Term expires.. .. .. No lease, we are tenants from year to year.
Rent.. .. .. $175 per annum.

No. 33.—*Clair, N.B*.. .. .. Office in Lessor's House.
Occupied by.. .. .. Immigration Agent.
Lessor.. .. .. Thos. J. Levesque.
Term expires.. .. .. Monthly.
Rent.. .. .. $10 per month.

SESSIONAL PAPER No. 19

No. 34.—*Cobalt, Ont.*.. Space in Royal Exchange building, 60 feet frontage with a depth of 33 feet, Prospect avenue.
Occupied by.. Post Office.
Lessor.. Alexander M. Bilsky.
Term expires.. January 30, 1918.
Rent.. $2,000 per annum.
Lessor pays taxes, water and heating.

No. 35.—*Coburg, Ont.*.. Two rooms in property of lessors, north side King street.
Occupied by.. Immigration Inspector.
Lessor.. John Gill Jackson and Lisgar Clark and O. G. Johns.
Term expires.. October 1, 1915.
Rent.. $170 per annum.
Lessors pay taxes and water.

No. 36.—*Deloraine, Man.*..
Occupied by.. Immigration.
Lessor.. H. H. Buxton.
Term explres.. April 1, 1915.
Rent.. $400 per annum.

No. 37.—*Digby, N.S.*.. Privilege of laying sewer across lands on east side Water street from Dominion building.
Occupied by.. As above.
Lessors.. Geo. E. E. Nichols and M. Edith L. Lynch.
Rent.. $1 per annum.

No. 38.—*Edmundston, N.B.*.. Room on 1st floor building now occupied by the lessor on Ferry street.
Occupied by.. Immigration, for shelter and examining room.
Lessor.. Timothee E. Boudreau.
Term expires.. March 1, 1915.
Rent.. $10 per month.
Lessor provides heat, light and use of telephone.

No. 39.—*Edmonton, Alta.*.. Part of Canadian Northern Railway station grounds.
Occupied by.. Immigration hall.
Lessor.. Canadian Northern Railway.
Term expires.. On one month's notice from either lessor or lessees.
Rent.. $1 per annum.
Lessee pays taxes and water.

No. 40.—*Edmonton, Alta.*.. Lot 23, block 2, river lot 10, 117 Fraser ave.
Occupied by.. Examining warehouse.
Lessor.. A. W. Ormsby.
Term expires.. May 30, 1916.
Rent.. $[illegible]07 per month.
Lessor pays taxes, water, heat, light and caretaking.

No. 41.—*Edmonton, Alta.*.. Two stores on ground floor including one vault store room, gents lavatory and cloak room, together with additional space in basement of Alexander block.
Occupied by.. Lands.
Lessor.. George Pheasey and Charles Colbert Batson.
Term expires.. July 1, 1918.
Rent.. $550 per month.
Lessors pay taxes, water and heat.
Lessee pays for light.

No. 42.—*Edmonton, Alta.*.. Office in Potter block.
Occupied by.. Weights and Measures.
Lessor.. A. E. Potter.
Term expires.. August 1, 1915 and afterwards from month to month.
Rent.. $420 per annum.
Lessor pays taxes, water, heat, light and cleaning.

No. 43.—*Entwistle, Alta.*.. Lots Nos. 20, 21 and 22 in block No. 4
Occupied by.. Immigration hall.
Lessor.. Village of Entwistle.
Term expires.. March 12, 1919.
Rent.. $3 per annum.
Lessee pays all taxes and rates.

No. 44.—*Fairville, N.B.*.. Wire for clock service.
Lessor.. N. B. Telephone Company.
Rent.. $40 per annum.

No. 45.—*Fort William, Ont.*.. Room No. 214 Cuthbertson block, north west corner May street and Victoria avenue.
Occupied by.. Inland Revenue, gas and electrical Department.
Lessor.. E. H. Cuthbertson.
Term expires.. February 8, 1915.
Rent.. $18 per month.
Lessor pays taxes, water, heat and provides elevator service.
Lessee pays for light and telephone.

No. 46.—*Fort William, Ont.*.. Parts of room 28, Graham-Horne building.
Occupied by.. Immigration.
Lessor.. G. A. Graham and J. T. Horne.
Term expires.. August 28, 1915.
Rent.. $17.40 per month.

No. 47.—*Fort William, Ont.*.. Premises for district engineers.
Lessors.. Murray, Vickers and Moffat.
Term expires.. Monthly.
Rent.. $75 per month.

No. 48.—*Fredericton, N.B.*.. Store and premises in brick building south side Queen street.
Occupied by.. Immigration.
Lessor.. Miss Eveleen Byrne.
Term expires.. May 1, 1915. Special clause in lease as follows: "If lessee shall neglect or refuse for the space of thirty days after the expiration of the term hereby demised to nominate and appoint a competent and disinterested person, then it shall be lawful for the lessor to nominate and appoint three competent and disinterested persons to fix and determine the rent to be payable, the decision of which persons or any two of them shall be binding and the lessors shall grant a new lease for a further term of three years at such rent as may be determined upon."
Rent.. $400 per annum.
Lessor pays ground rent and taxes.
Lessee pays water and sewerage rates.

No. 49.—*Fredericton, N.B.*.. Part of 3rd floor of a building in Fredericton known as Pitts building.
Occupied by.. Engineers.
Lessor.. Herman H Pitts
Term expires.. May 1, 1915.
Rent.. $400 per annum.
Lessor pays taxes and heating.
Lessee pays water and sewerage taxes.

No. 50.—*Glace Bay, Cape Breton, N.S.*.. Lot of land for construction of protection wall at Glace Bay beach.
Lessor.. Dominion Coal Company.
Term expires.. January 30, 1928 with option to renew upon request of lessee 6 months previous to expiry for a like period of 20 years.
Rent.. $1 per annum.

No. 51.—*Grande Prairie*.. Parts of building on lots 31 and 32 block 4.
Occupied by.. Immigration.
Lessor.. J. O. Patterson.
Term expires.. January 1, 1915.
Rent.. $65 per month.

SESSIONAL PAPER No. 19

No. 52.—Grande Prairie, Alta.
Premises for Lands Office.
Lessors.. J. Fletcher and A. S. McLean.
Term expires.. Monthly.
Rent.. $20 per month.

No. 53.—Gravelbourg, Sask.
Lots 7, 8, 9, 10, block 14.
Occupied by.. Immigration Hall.
Lessor.. McKenzie & Mann.
Term expires.. January 1, 1918. Premises to be vacated on 30 days notice by lessors at any time.
Rent.. $1 per annum.
Lessee pays taxes.

No. 54. Grouard, Alta.
One long room owned by lessor.
Occupied by.. Immigration hall.
Lessor.. J. O. Giroux.
Term expires.. June 1, 1915.
Rent.. $40 per month.

No. 55.—Grouard, Alta.
Occupied by.. Lands office.
Lessor.. Wm. Stewart, Manager Royal Bank of Canada. Peace River Crossing, Alta.
Term expires.. Monthly.
Rent.. $60 per month.
Lessee pays water, heating and lighting.

No. 56.—Halifax, N.S.
Top floor Dennis building.
Occupied by.. Militia and Defence.
Lessor.. Dennis Realty Corporation.
Term expires.. October 1, 1918 with option to lessee to terminate lease at end of 3rd or 4th year from October 1, 1913, on 6 months previous notice.
Rent.. $3,112 per annum.
Lessors pay taxes, water, insurance, heating and provide elevator service.

No. 57.—Halifax, N.S.
Fifth floor Dennis building corner Granville and George streets.
Occupied by.. Militia and Defence.
Lessor.. Dennis Realty Corporation.
Term expires.. October 1, 1918 with option to terminate lease at end of 3rd and 4th year from October 1, 1913 on 6 months previous notice.
Rent.. $3,112 per annum.
Lessors pay taxes, water, insurance, heating and provide elevator service.

No. 58.—Halifax, N.S.
Office and vault in Metropole building.
Occupied by.. W. C. Milner, eastern representative of the Archives.
Lessor.. Eastern Canada Savings and Loan Company, Metropole building, Halifax, N.S.
Term expires.. Monthly.
Rent.. $18.75 per month.

No. 59.—Halifax, N.S.
245, 247 and 249 Hollis street.
Occupied by.. Customs Express and warehouse.
Lessor.. Estate of Dr. James Walker represented by R. S. Rossborough, Trustee, Halifax, N.S.
Term expires.. April 30, 1917.
Rent.. $1,200 per annum.
Lessor pays taxes.
Lessee pays water.

No. 60.—Hamilton, Ont.
Ground floor of building on south east corner of Kinrade avenue and Barton street also cellar accommodation and rear entrance.
Occupied by.. Post Office station "B."
Lessor.. Clara Jane Swales.
Term expires.. November 1, 1916.
Rent.. $1,200 per annum.
Lessor pays taxes, water, heat and repairs to heating apparatus also cleaning.

No. 61.—Humboldt, Sask.
Premises for lands office.
Lessor.. Humboldt Realty Company.
Term expires.. Monthly.
Rent.. $60 per month.

No. 62.—Indian Head, Sask. .. Four rooms in two story brick building, Main street.
Occupied by .. Three distributing staff.
Lessor .. Mrs. L. A. Osment.
Term expires .. Yearly tenants from September 1 each year.
Rent .. $300 per annum.
Lessor pays taxes, water.
Lessee pays heat, light and cleaning.

No. 63.—Ingersoll, Ont. .. In building known as Old Imperial bank building, Thames street, ground floor including vault.
Occupied by .. Temporary quarters for Post office during alterations to public building.
Lessor .. Imperial bank.
Term expires .. When alterations public building are completed.
Rent .. $75 per month.
Lessor pays heating and lighting.

No. 64.—Joliette, P.Q. .. Safe in temporary Post Office quarters.
Lessor .. Canadian Bank of Commerce.
Rent .. $5 per month.

No. 65.—Joliette, P.Q. .. Chaput brick building, ground floor, 1st floor and attic.
Occupied by .. Customs and caretaker.
Lessor .. J. Ulric and J. Antonia Chaput.
Term expires .. May 1, 1915 with right to renew for another year on same terms and conditions on 3 months notice of lessors in writing prior to expiration of term, floor area 2,303 square feet.
Rent .. $600 per annum.
Lessor pays taxes.
Lessee pays water, heat and light.

No. 66.—Joliette, P.Q. .. Part of house, 33a Manseau street.
Occupied by .. Assistant Post Office Inspector.
Lessor .. Mrs. Marie Amanda Dauphin.
Term expires .. December 1, 1914, and month to month afterwards till public building is ready for occupation.
Rent .. $264 per annum.
Lessor pays taxes, water, heat, light, cleaning and removal of snow.

No. 67.—Joliette, P.Q. .. Ground floor Lachapelle building previously occupied by Canadian Bank of Commerce.
Occupied by .. Post Office temporarily.
Lessor .. Euclide Lachapelle.
Term expires .. May 1, 1915 with option to renew for a year on 4 months notice prior to expiration of term.
Rent .. $720 per annum.
Lessor pays taxes.
Lessee pays water, heat and light.

No. 68.—Joliette, P.Q. .. Additional space in lessor's building 20 by 20 feet.
Occupied by .. Post Office (Temporary).
Lessor .. Euclide Lachapelle.
Term expires .. May 1, 1915 with option to renew for 1 year on 4 months notice prior to expiry of lease.
Rent .. $20 per month.

No. 69.—Joliette, P.Q. .. Part of first flat of house east corner of St. Viateur and Place Bourget.
Occupied by .. Weights and Measures.
Lessor .. Mrs. Joseph Louis Preville, widow.
Term expires .. January 22, 1918.
Rent .. $264 per annum.
Lessor pays taxes, removes snow and pays heat, light and cleaning.

No. 70.—Joliette, P.Q. .. Ground floor brick building, 26 St. Viateur street.
Occupied by .. Inland Revenue.
Lessor .. Joseph C. L. Rivest.
Term expires .. May 1, 1915 with option to renew for one year on half of 1 year at $25 a month on 3 months notice to lessor prior to expiry of lease.

SESSIONAL PAPER No. 19

No. 70.—Joliette, P.Q.—Con.

Rent.. .. .. $25 per month, but as premises removed to second floor rent has been reduced by $1 per month.

Lessor pays taxes and heating.
Lessee pays water.

No. 71.—Kamloops, B.C... .. .. Part of ground floor 60 by 20 feet and two vaults 15 feet 6 inches by 8 feet and 6 feet 8 inches in lessors building north east corner 4th avenue and Seymour street, Western Canada Trust building.

Occupied by.. .. .. Dominion Lands and Crown Timber Service.
Lessor.. .. .. Independent Securities Ltd.
Term expires.. .. .. Three years from date of occupation, date of lease June 1, 1914.
Rent.. .. .. $125 per month.
Lessors pay taxes, water, heat and cleaning.

No. 72.—Kamloops, B.C... .. .. Four rooms Nos. 11, 12, 13 and 14 fronting on Seymour street on first floor of building north east corner of 4th avenue and Seymour streets, buiding known by following names: Western Canada Trust building, Acadia building and Kamloops Syndicate building.

Occupied by.. .. .. Forestry branch.
Lessor.. .. .. Kamloops building syndicate.
Term expires.. .. .. July 15, 1915.
Rent.. .. .. $112 per month.
Lessors pay taxes, water, heat, light and janitor.

No. 73.— Kerrobert, Sask.. .. .. Site Immigration hall.

Lessor.. .. .. C. P. railway.
Term expires.. .. .. May 1, 1912 and afterwards from year to year, lease may be terminated by lessor by one month's notice and such notice may be given by posting same on the premises.
Rent.. .. .. $1 per year.
Lessee pays taxes.

No. 74.—Kingston, Ont.. .. .. Four rooms in second flat, facing on King street, Nos. 1, 2, 3 and 4, (vault accommodation included) in the Bank of Toronto building, and part of Lot 96 in City of Kingston.

Occupied by.. .. .. E. H. Pense and staff in connection with harbour improvements.
Lessor.. .. .. Bank of Toronto.
Term expires.. .. .. May 1, 1915, with option to renew for one year on same terms on giving lessors one month's notice.
Rent.. .. .. $360 per annum. Rental paid charged monthly to harbour improvements.
Lessors pay water, heat and cleaning of halls.

No. 75.—Kingston, Ont.. .. .. Premises on Market square, ground floor of tenement No. 8, the ground floor and second floor of tenement No. 10 and the whole of tenements Nos. 12 and 14 street number, forming part of Lot Letter I in Ontario Ward, Kingston.

Occupied by.. .. .. Federal Public Service, Inland Revenue, Customs, Marine and Fisheries and Railways and Canals.
Lessors.. .. .. Representatives of Gildersleeve estate, Kingston represented by Henry Herchmer Gildersleeve and Helen Emily Herchemer of Belleville Committee of the person and estate of Laurence Kirby Herchmer a person of unsound mind.
Term expires.. .. .. July 1, 1928 with option to renew for 21 years on same conditions.
Rent.. .. .. $1,762 per annum.
Lessee provides fireman, light and fuel and water and pays taxes, street sprinkling and snow cleaning.

No. 76.—Kingston, Ont... Premises situate on part of lots 294 and 295 west Bagot street, frontage 134 feet, depth 119 feet, south side of Brock and Clarence streets with brick building, stables and sheds.
Occupied by.. Additional stores for Militia Department.
Lessor.. Thos. J. Polly, present address 625 11th avenue west Calgary.
Term expires.. May 1, 1914.
Rent.. $1,000 per annum.
Lessor pays ground rent, taxes and water.

No. 77.—Landsdowne, Ont... Ground floor of tenement of building owned by lessor, north east corner of Prince street and Grand Trunk avenue.
Occupied by.. Post Office.
Lessor.. Wm. McConnell.
Term expires.. December 1, 1918.
Rent.. $150 per annum of which Government pays $50 and Postmaster $100.
Lessor pays taxes.

No. 78.—Le Pas, Manitoba.. Store on east side of Edwards avenue adjoining corner of Edward avenue and Second street.
Occupied by.. Post Office.
Lessor.. Wm. Sinclair, M.D.
Term expires.. September 15, 1915.
Rent.. $600 per annum
Lessor pays all taxes.

No. 79.—Lethbridge, Alta.. All of Singer building and ground floor and lavatory in basement of premises known as the Post Office Block.
Occupied by.. Post Office and carriers' office.
Lessor.. John David Higginbotham.
Term expires.. Monthly.
Rent.. $325 per month.
Lessor pays taxes, heating and janitor.
Lessee pays water.

No. 80.—Lethbridge, Alta.. Two rooms in Hull block Nos. 5 and 6, floor area 783 square feet which makes rental equal to 99·61 cents per square foot.
Occupied by.. Inspector Inland Revenue.
Lessor.. W. R. Hull & Co.
Term expires.. Monthly
Rent.. $65 per month.
Lessor pays water, heating and caretaking.
Lessee pays lighting.

No. 81.—London, Ont... Room No. 3 Coote block.
Occupied by.. Immigration.
Lessor.. John C. Coote.
Term expires.. Monthly.
Rent.. $10 per month.

No. 82.—Longue Point, P.Q... A portion of ground adjoining lessors shops at National Bridge Co., Longue Point.
Occupied by.. Storage of materials in connection with the construction of new examining warehouse Montreal.
Lessor.. P. Lyall & Sons Construction Co., Ltd.
Term expires.. "During such time as premises are required by the lessee for said purpose" of storage.
Rent.. $1 for period "of which receipt is hereby acknowledged."

No. 83.—L'Orignal, Ont... West half of two-story brick building north side King street on lot letter "D" in village of L'Orignal and a strip of land 21 feet in width by 30 feet in depth at the rear of building.
Occupied by.. Post Office.
Lessor.. Alexandre Chatelaine.
Term expires.. January 1, 1919.
Rent.. $250 per annum, half of which is paid by Government and half by Postmaster.
Lessor pays taxes, Postmaster pays for water, heat, light and cleaning.

SESSIONAL PAPER No. 19

No. 84.—*Maisonneuve, P.Q.*
Occupied by.. Post Office.
Lessor.. Magloire Lépine.
Term expires.. May 1, 1915.
Rent.. $30 per month.
Lessor pays taxes.
Lessee pays for water.

No. 85.—*Maple Creek, Sask.*.. First floor of lessor's building corner facing the railway depot.
Occupied by.. Lands.
Lessor.. L. C. Parsons, Cowansville, P.Q.
Term expires.. March 1, 1918.
Rent.. $1,200 per annum.
Lessor pays all taxes and provides water service and drainage.

No. 86.—*Maple Creek, Sask.*.. Room in building adjoining Lands office.
Occupied by.. Ranch Inspector.
Lessor.. D. J. Wylie.
Term expires.. Monthly.
Rent.. $15 per month.

No. 87.—*Medicine Hat, Alta.*.. Portion of building occupied by lessor on lots 11 and 12 in block 6 more particularly described as office on north east corner of the building.
Occupied by.. Meter Testing Office.
Lessor.. D. & A. Printing and Engraving Co., Ltd., (in liquidation) by Chas. F. Hayes, liquidator.
Term expires.. February 1, 1915.
Rent.. $30 per month.
Lessor pays all taxes including water also electric light and gas.

No. 88.—*Medicine Hat, Alta.*.. 107 Main street, ground floor, 1,125 square feet.
Occupied by.. Examining warehouse.
Lessor.. H. T. W. Forster.
Term expires.. December 6, 1915.
Rent.. $75 per month.
Lessor pays all taxes including water also insurance.

No. 89.—*Medicine Hat, Alta.*.. Office 306, owned by lessors in office building on lots 23 and 24, block 14, plan 1491.
Occupied by.. Immigration.
Lessor.. Walter Huckvale and Sidney Tom Hooper.
Term expires.. June 1, 1915.
Rent.. $28 per month.
Lessor pays janitor.

No. 90.—*Merrickville, Ont.*.. Portion of Jakes block erected in part on lot 5 on Main street.
Occupied by.. Post Office.
Lessor.. Geo. L. Jakes.
Term expires.. January 1, 1915 with option to renew for one year on same terms and conditions.
Rent.. $350 per annum of which Government pays $200 and Postmaster $150.
Lessor pays all taxes including water also heat, light and cleaning.

No. 91.—*Midland, Ont.*.. Upper flat brick building consisting of 3 office rooms and a small room for blue printing. 780 square feet.
Occupied by.. Engineers.
Lessor.. Macartney Bros.
Term expires.. When new public building is ready for occupation.
Rent.. $30 per month.
Lessors pay taxes.
Lessee pays water, heat, light and $10 a month for caretaker.

No. 92.—*Montreal, Que.*.. Ground floor and first floor of Read building on St. Alexander street, floor area 38,503 sup. feet, 65 cents per square foot.
Occupied by.. Customs Express.
Lessor.. Alexander Building Ltd.
Term expires.. May 1, 1916 with option of renewal for one year on same terms and conditions on 3 months notice to lessors before expiry of lease.
Rent.. $25,000 per annum.
Lessor pays all taxes and heating and provides elevator service.
Lessee pays for water.

No. 93.—*Montreal, Que.*.. .. .. Room No. 20 on first floor of Beardmore building.
Occupied by.. .. .. Supervising Engineer, Public Works Department.
Lessor.. .. .. Beardmare & Company.
Term expires.. .. .. May 1, 1916.
Rent.. .. .. $800 per annum.
Lessor pays taxes and heating and provides elevator service.
Lessee pays water.

No. 94.—*Montreal, Que.*.. .. .. North west part of a store No. 101 St. Catherine street east.
Occupied by.. .. .. Postal station "N."
Lessor.. .. .. Cordelia Blache curatrix to Alfred Dalbeck, advocate her husband represented herein by Charles Real Blache of Montreal, agent.
Term expires.. .. .. May 1, 1916.
Rent.. .. .. $1,800 per annum.
Lessor pays all taxes.
Lessee pays water, snow cleanging and in addition to heating the portion of the building occupied by Postal Station "N" also heats fruit store occupied by L. Payne and Hall for physical culture.

No. 95.—*Montreal, Que.*.. .. .. Office south west corner of baggage room of Windsor street station.
Occupied by.. .. .. Mail room.
Lessor.. .. .. Canadian Pacific Railway.
Term expires.. .. .. November 1, 1908 or lease may be terminated by lessor at any time by mailing (postage paid) at Post Office in Montreal a notice addressed to the Minister of Public Works, Ottawa, naming a day at least 3 months from the mailing thereof.
Rent.. .. .. $213 per annum.
Lessor pays heating.

No. 96.—*Montreal, Que.*.. .. .. Portions on the fifth and ninth floors of Shaughnessey building corner of McGill and St. Paul streets.
Occupied by.. .. .. District Engineer Public Works Department and Wreck Commissioners of Department of Marine and Fisheries.
Lessors.. .. .. Dorchester Realties Ltd.
Term expires.. .. .. May 1, 1919.
Rent.. .. .. $7,327.37 per annum equals $1 a square foot and and 10 per cent on cost of partitions.
Lessors pay taxes, insurance, heating and provide elevator service.
Lessee pays for water.

No. 97.—*Montreal, Que.*.. .. .. Five offices Nos. 5, 6, 7, 8 and 9 on first floor, 319 University street.
Occupied by.. .. .. Letter Carriers Depot.
Lessor.. .. .. Charles Charters and John Liggett.
Term expires.. .. .. May 1, 1915.
Rent.. .. .. $1,500 per annum.
Lessors pay taxes, insurance and heating.
Lessee pays water and lighting.

No. 98.—*Montreal, Que.*.. .. .. Brick and stone building on St. Paul street Nos. 272 and 274 extending through to Nos. 113 and 115 on Commissioners street.
Occupied by.. .. .. Military stores and offices.
Lessor.. .. .. Estate of Simeon Delorme.
Term expires.. .. .. May 1, 1917.
Rent.. .. .. $3,000 per annum.
Lessee pays general taxes.

No. 99.—*Montreal, Que.*.. .. .. Four rooms Nos. 6, 7, 8 and 9 in lower storey of Quebec Bank building corner Place D'Armes and St. James street.
Occupied by.. .. .. Archives.
Lessor.. .. .. Dominion Trust Co. of Canada.
Term expires.. .. .. May 1, 1915 afterwards year by year unless written notice is given by either party on or before February 1, 1915 or on same date in any subsequent year.
Rent.. .. .. $1,000 per annum.

No. 99.—Montreal, Que.—Con.

Lessor pays heating and cleaning and Lessor furnishes electric light by 8 lamps of 16 c. p. from 8 a.m. to 7 p.m., except Saturday—on which day it shall be provided from 8 a.m. to 6 p.m. and at all other times the Lessor shall furnish gas through the fixtures now installed or electric light as herein provided until 10.30 p.m. The charge for electric light shall be as follows payable in quarterly instalments with the rent on 1st August, November, February and May:—

1 to 3 lights	(16 c. p.)	for	each light	$5	per annum.
4 to 13 "	"	"		4	"
14 to 22 "	"	"		3 60	"
23 lights and over	"	"		3 20	"

Fan motors $2.50 per month for each motor.

No. 100.—Montreal, Que... About one-half of the eighth floor of Shaughnessey building corner McGill and St. Paul street.
Occupied by.. Marine and Fisheries.
Lessor.. Dorchester Realties Limited.
Term expires.. May 1, 1919.
Rent.. $4,420.05 per annum equals $1 per square foot and 10 per cent on cost of partitions.
Lessors pay taxes, insurance, heating and provide elevator service and attendants thereof.
Lessee pays for water.

No. 101.—Montreal, Que... First floor of a property bearing No. 19, on official plan and book of reference of Centre Ward, (209 Commissioners street).
Occupied by.. Marine and Fisheries.
Lessor.. Julie Gougeon, wife of Theophile Prud'homme.
Term expires.. May 1, 1914, with privilege of continuing from year to year. Notice of termination to be given on or before the 1st day of Fegruary, in any year by either party.
Rent.. $1,250 per annum.
Lessor pays all taxes including water rates, also heating.
Lessee pays lighting and cleaning.

No. 102.—Montreal, Que... Premises in ground floor and basement west half of basement of property bearing No. 19, on official plan and book of reference of Centre Ward, and room 412 on 1st floor, 207 Commissioner street.
Occupied by.. Carpenter shop.
Lessor.. Julie Gougeon, wife of Theophile Prud'homme.
Term expires.. May 1, 1915.
Rent.. $55 per month.
Lessors pays all taxes including water rates, also heating, lighting and cleaning.

No. 103.—Montreal, Que... St. Cunegonde Ward, ground floor, Municipal building, corner Vinet and Richelieu, Montreal, with vault and toilet room, and basement, with entrance on Vinet street.
Occupied by.. Post Office.
Lessor.. Originally City of St. Cunegonde, now City of Montreal.
Term expires.. June 10, 1925.
Rent.. $1,750 per annum.
Lessor pays heat, light and cleaning.

No. 104.—Moosejaw, Sask... Five rooms on first floor, area about 1,679 square feet, Bunnell block, High street west.
Occupied by.. Lands.
Lessor.. John H. Bunnell.
Term expires.. December 1, 1914, with option of renewal on same terms and conditions for another year.
Rent.. $175 per month.
Lessor pays taxes, water, insurance and heating.

No. 105.—Moosejaw, Sask... Two rooms on first floor of Imperial bank block, 15½ High street, west.
Occupied by.. Inland Revenue.
Lessor.. Norman St. Clair Fraser, originally—now Imperial Bank.
Term expires.. From month to month till new premises in Public building are ready for occupation.
Rent.. $50 per month.
Lessor pays taxes, heat, light and cleaning.

No. 106.—Moosejaw, Sask... Lots 27 and 28 in block 127 on Manitoba street.
Occupied by.. Immigration.
Lessor.. City Clerk of Moosejaw.
Term expires.. April 15, 1915.
Rent.. $100 per annum.

No. 107.—Nelson, B.C... Four rooms in lessor's brick building, corner Ward and Victoria streets.
Occupied by.. District Engineer.
Lessor.. John Ed. Amable.
Term expires.. April 12, 1915, with option to renew for one year on same terms, or 3 months' notice to lessor, prior to expiry of lease.
Rent.. $600 per annum.
Lessor pays taxes, water, heating, lighting and janitor.

No. 108.—Nominique, P.Q... Privilege of gate, 15 feet in width in fence at C. P. Ry. station grounds.
Lessor.. C. P. Ry.
Term expires.. Gate may be removed and opening closed any time by C. P. Ry. on one month's written notice or by posting notice on premises.
Rent.. $8 for first year and $1 per year after that.
Lessee indemnifies lessor against any damages.

No. 109.—North Battleford site.
Occupied by.. Immigration Hall.
Lessor.. Canadian Northern Railway.
Term expires.. April 30, 1909, lessee or lessor may terminate lease on one month's notice in writing.
Rent.. $1 per annum.
Lessee pays taxes.

No. 110.—North Battleford.. Two large connected rooms, also wash room and toilet room, cellar and ground in rear to lane. No. 18 Railway avenue east.
Occupied by.. Immigration and Lands Office.
Lessor.. Wm. Dickinson.
Term expires.. May 5, 1916.
Rent.. $50 per month.

No. 111.—North Portal, Sask... Site.
Occupied by.. Immigration Hall.
Lessor.. C. P. Ry.
Term expires.. Year to year (1st June each year).
Rent.. $1 per annum.
Lessee pays taxes.

No. 112.—North Sydney.. Second story flat of Y. M. C. A. building.
Occupied by.. Engineers Public Works Department.
Lessor.. Y. M. C. A.
Term expires.. May 1, 1916.
Rent.. $600 per annum.
Lessor pays taxes and heating.
Lessee pays water and lighting.

No. 113.— Old Alberni, B.C... Part of building on lot 1, block 11, in town of Old Alberni, B.C., 26 by 26 feet.
Occupied by.. Post Office.
Lessor.. Leonard Frank.
Term expires.. April 1, 1916.
Rent.. $200 per annum.
Lessor pays all taxes including water rates.

No. 114.— Orillia, Ont... All the ground or main floor of centre store in block of three stores, known as the Minthorn block, with cellar and frame shed in rear of Westerly store, with use of yard and right-of-way along rear lane to Peter street. 19 by 76 feet.
Occupied by.. Temporary quarters for Post Office, during alterations.
Lessor.. Archibald T. Carter.
Term expires.. February 15, 1915.
Rent.. $60 per month.
Lessor pays taxes and heating, by hot air furnace.
Lessee pays water.

No. 115.—Orillia, Ont. .. Easterly store of block of 3 stores forming the Grand Central hotel building, S. S. Missessaga street, with use in common with others of cellar under store and right-of-way to and from rear entrance.
Occupied by .. Temporary quarters for Customs.
Lessor .. Christopher Moore Estate.
Term expires .. November 1, 1914, and thereafter at the option of lessee on same terms and conditions until new building is ready for occupation.
Rent .. $35 per month.
Lessors pay taxes, insurance and heating.
Lessee pays water rates.

No. 116.—Orillia, Ont. .. Temporary quarters for caretaker.
Occupied by .. Caretaker.
Lessor .. Jabez Woon.
Term expires .. Month to month.
Rent .. $10 per month.

No. 117.—Ottawa, Ont. .. Two rooms, one in front and one in rear with vaults and lavatories, Victoria Chambers, 130 Wellington street, floor area 950 square feet.
Occupied by .. Interior Department, Inspector Dominion Lands Surveys.
Lessor .. William Anderson Allan and Sandford Hall Fleming.
Term expires .. April 20, 1915.
Rent .. $90 per month.
Lessor pays all taxes, heating and lighting.

No. 118.—Ottawa, Ont. .. Suite No. 5 in Aylmer Annex, Nos. 11, 19 Slater street and storeroom in basement, 1,598 square feet at 40·7 cents.
Occupied by .. Col. Biggar and staff, Militia and Defence Dept.
Lessor .. Sir Henry N. Bate Realty Corporation.
Term expires .. December 1, 1916.
Rent .. $630 per annum.
Lessors pay all taxes and heating also janitor but not care of premises leased.

No. 119.—Ottawa, Ont. .. Aylmer Annex Apartment No. 6.
Occupied by .. Militia and Defence.
Lessor .. Sir Henry Bate Realty Corporation.
Term expires .. September 30, 1915.
Rent .. $648 per annum.
Lessor pays all taxes, heating, water and janitor, but not care of premises leased.

No. 120. Ottawa, Ont. .. Suite of rooms in Apartment No. 7, in Aylmer Annex and store room in basement, floor area 1,118 square feet.
Occupied by .. Royal Engineers.
Lessor .. Sir Henry N. Bate Realty Corporation.
Term expires .. October 1, 1915.
Rent .. $30 per month in advance.
Lessor pays all taxes, heating and janitor, but not caretaking of premises leased.

No. 121.—Ottawa, Ont. .. 10-12 Albert street, with right of way on east of premises, floor area 8,700 square feet.
Occupied by .. Examining warehouse and Express office and Statistics, Customs Department.
Lessor .. H. N. Bate & Sons, Ltd.
Term expires .. May 1, 1916.
Rent .. $1,600 per annum.
Lessors pay taxes.
Lessee pays water and street sprinkling.

No. 122.—Ottawa, Ont. .. Clock line service.
Lessor .. Bell Telephone Co.
Term expires .. April 19, 1915, may be terminated by either party on 30 days' written notice in advance. Lines remain the property of the Company.
Rent .. $395 per annum.

No. 123.—Ottawa, Ont... .. .. Whole of five upper floors and part of basement in Birks building, Sparks street, floor area 23,185 square feet.
Occupied by.. .. .. Marine and Fisheries, Inland Revenue, Railways and Canals, Public Works Department and Agriculture.
Lessor.. .. .. Henry Birks & Sons, Ltd.
Term expires.. .. .. October 1, 1916.
Rent.. .. .. $17,000 per annum.
Lessors pay taxes, heating and provide elevator.
Lessee pays water, lighting and cleaning.

No. 124.—Ottawa, Ont... .. .. Two rooms on first floor of lessors building, corner of Sparks and Bank street. Floor area, 469 square feet.
Occupied by.. .. .. Mr. Challoner, Geodetic Survey, P. W. Dept.
Lessor.. .. .. Russell Blackburn.
Term expires.. .. .. May 1, 1916.
Rent.. .. .. $350 per annum.
Lessor pays taxes and heating.
Lessee pays water.

No. 125.—Ottawa, Ont... .. .. Part of 2nd floor, part of 3rd floor and the whole of 4th, 5th, 6th, 7th, 8th and 9th floors of eastern portion of Union bank building, 29,350 square feet which excludes halls, staircase, elevator space, corridors and toilet rooms, counting the top floor at one and one-half floors on account of its extra height.
Occupied by.. .. .. Post Office and Interior.
Lessor.. .. .. R. L. & R. Blackburn.
Term expires.. .. .. July 16, 1918.
Rent.. .. .. $28,986 per annum.
Lessors pay taxes, heating and provide elevator service.
Lessee pays water, lighting and cleaning.

No. 126.—Ottawa, Ont... .. .. Large front room in basement of Union bank building on eastern side of building, floor area 860 sup. feet.
Occupied by.. .. .. Railway Lands Branch Interior Department.
Lessor.. .. .. R. L. & R. Blackburn.
Term expires.. .. .. August 21, 1915.
Rent.. .. .. $350 per annum.
Lessor pays taxes, heating and elevator service.
Lessee pays lighting and water.

No. 127.—Ottawa, Ont... .. .. Six floors in Union bank building at rear of Langevin block, floor area 15,240 square feet.
Occupied by.. .. .. Interior and Post Office.
Lessor.. .. .. R. L. & R. Blackburn.
Term expires.. .. .. January 6, 1917.
Rent.. .. .. $13,000 per annum.
Lessors pay taxes and heating.
Lessee pays water.

No. 128.—Ottawa, Ont... .. .. Two rooms bearing Nos. 608, 609 and 611, Union bank building, 1,154 superficial feet.
Occupied by.. .. .. Post Office Department.
Lessor.. .. .. R. L. & R. Blackburn.
Term expires.. .. .. July 15, 1918.
Rent.. .. .. $1,154 per annum.
Lessors pay all taxes, less water rates.

No. 129.—Ottawa, Ont... .. .. Three upper floors of building on Sparks street known as Booth building, 16,495 square feet.
Occupied by.. .. .. Indian Affairs.
Lessor.. .. .. C. Jackson Booth and J. A. D. Holbrook.
Term expires.. .. .. November 1, 1918.
Rent.. .. .. $16,495 per annum.
Lessors pay all taxes and heating and provide use of elevators.

No. 130.—Ottawa, Ont... .. .. Room No. 212 Trafalgar building, floor area 291 square feet.
Occupied by.. .. .. Civil Service Commission.
Lessor.. .. .. John Charles Brennan.
Term expires.. .. .. Year to year from September 1.
Rent.. .. .. $274.62 per annum.

No. 131.—Ottawa, Ont... .. .. Premises in Trafalgar building:—
On 1st floor.—Rooms Nos. 101 to 106 inclusive and Nos. 112 and 113, rooms 107 to 111 inclusive, occupied by Annuities branch, Post Office Department.
On 2nd Floor.—Rooms Nos. 201, 202, 203, 206 to 214 inclusive, occupied by Civil Service Commission.
On 3rd Floor.—Rooms 301 to 314 inclusive, occupied by Accountant's Branch Interior Department.
On 4th Floor.—Rooms 401 to 409 inclusive 412 also 413, occupied by Controller of Revenue, Interior Department. Floor area 16,955 square feet.
Lessor.. .. .. John Charles Brennan.
Term expires.. .. .. May 1, 1918.
Rent.. .. .. $16,000 per annum.
Lessor pays taxes and heating and provides use of elevator.
Lessee pays water and lighting and cleaning.

No. 132.—Ottawa, Ont... .. .. Four floors above ground floor in lessors building on Queen street between Bank and O'Connor streets, 12,280 superficial feet.
Occupied by.. .. .. Interior Department, Dominion Parks branch 1st and 2nd floors; Public Works Department, Upper Ottawa storage, 3rd floor; Public Works Department, Georgian Bay Commission, 1st floor (part); Public Works Department, District Engineer, 4th floors.
Lessor.. .. .. Bryson Realty Co., Ltd.
Term expires.. .. .. April 25, 1919.
Rent.. .. .. $8,596 per annum.
Lessors pay taxes, water rates, heating.
Lessee provides elevator attendant.

No. 133.—Ottawa, Ont... .. .. No. 105 Murray street, floor area 5,975 square feet. Lessors to provide the necessary access to 1st floor from the main building.
Occupied by.. .. .. Storage for Printing Bureau.
Lessor.. .. .. The Bytown and Suburb Lands Co., Ltd.
Term expires.. .. .. July 14, 1919.
Rent.. .. .. $2,390 per annum.
Lessors pay taxes, water and insurance.

No. 134.—Ottawa, Ont... .. .. Basement 136 Emmett street, 3,300 square feet.
Occupied by.. .. .. Storage Militia and Defence.
Lessor.. .. .. Capital Storage Co., Ltd.
Term expires.. .. .. Date of lease, October 8, 1914. Term 1 year from date of occupation and thereafter during the continuance of the war. Lessee to give 3 months written notice of intention to vacate.
Rent.. .. .. $1,650 per annum.
Lessor pays taxes, water, insurance, heating and elevator service.

No. 135.—Ottawa, Ont... .. .. Dwelling house and premises, No. 12 Emmett street, excepting the stable facing Lisgar street, which lessor may remove at any time, floor area 3,000 square feet.
Occupied by.. .. .. Medical Laboratory of Hygiene.
Lessor.. .. .. E. W. Clark, Managing Director Standard Milk Co., corner Yukon and 8th avenue, Vancouver, B.C.
Term expires.. .. .. April 30, 1915.
Rent.. .. .. $40 per month.
Lessor pays taxes.
Lessee pays water, water sprinkling, snow cleaning.

No. 136.—Ottawa, Ont... .. .. First and second floors of building 113-115 Rideau street, (corner William) with a small shed in rear. Floor area 10,919 square feet.
Occupied by.. .. .. Militia Department.
Lessors.. .. .. Duford and Charleson.

No. 136.—Ottawa, Ont.—Con.
Term expires.. .. .. February 20, 1916.
Rent.. .. .. $4,700 per annum and $2,353.60 per annum at 111 Rideau street. Rented February 15, 1912 for additional space required.
Lessors pay taxes and heating.
Lessees pay water.

No. 137.—Ottawa, Ont... .. .. Property in Ottawa, 128 Wellington street. Floor area 5,714 square feet.
Occupied by.. .. .. N. W. Mounted Police.
Lessor.. .. .. D. M. Finnie and W. D. Morris.
Term expires.. .. .. November 20, 1915, with option of renewal for 3 years on same terms and conditions
Rent.. .. .. $4,000 per annum.
Lessors pay taxes, water, insurance.
Lessee pays heating, cleaning and lighting.

No. 138.—Ottawa, Ont... .. .. Brick building north side of Sparks street at No. 347, consisting of basement and 3 stores. Floor area 5,376 square feet.
Occupied by.. .. .. Militia stores.
Lessor.. .. .. Thomas Fleming.
Term expires.. .. .. April 1, 1916.
Rent.. .. .. $1,080 per annum.
Lessor pays taxes.
Lessee pays water.

No. 139.—Ottawa, Ont... .. .. Two top floors of Imperial building, corner Queen and O'Connor street. Floor area 10,497 square feet.
Occupied by.. .. .. Topographical Branch of Interior Department.
Lessor.. .. .. John M. Garland.
Term expires.. .. .. October 1, 1916.
Rent.. .. .. $2,500 per annum.
Lessors pay taxes, water, insurance, heating.
Lessee pays lighting and cleaning.

No. 140.—Ottawa, Ont... .. .. All that 4-story brick building north east corner of O'Connor and Queen streets, known as Regal building. Floor area, 22,512 square feet.
Occupied by.. .. .. Labour Department, Militia Department, Aberdeen Association, High Cost of Living Commission.
Lessor.. .. .. J. E. Hanna.
Term expires.. .. .. September 12, 1919.
Rent.. .. .. $13,000 per annum.
Lessor pays taxes.
Lessee pays water, snow cleaning, heating, lighting, street sprinkling, janitor service, operation of elevato' and all expenses in connection with maintenance. Order in Council September 11, 1914.

No. 141.—Ottawa, Ont... .. .. Third floor of Hope building, corner Sparks and Elgin streets. Floor area, 2,544 square feet.
Occupied by.. .. .. Railway Mail Service.
Lessor.. .. .. James Hope & Son.
Term expires.. .. .. January 29, 1916 with option to renew for two years on same terms.
Rent.. .. .. $2,500 per annum.
Lessors pay taxes, water, insurance, heat and provide elevator service.

No. 142.—Ottawa, Ont... .. .. Easement Langevin block.
Lessors.. .. .. Executors and Trustees of Samuel Howell.
Term expires.. .. .. April 25, 1919 renewable at expiry of lease for 21 years and thereafter for further 21 years at expiry of each 21 years period.
Rent.. .. .. $5 per annum.

Public building, Wolfville, N.S.

SESSIONAL PAPER No. 19

No. 143.—Ottawa, Ont... .. .. *Canadian building.*—12 and 14 Slater street excepting that portion occupied by lessor as an office.
Militia building.—22 and 28 Slater street.
Queen street building.—64 and 66 Queen street.

Occupied as follows.. .. .. .. *Canadian building present occupants.*
7th floor.—Agriculture.
6th " —Census and Statistics.
5th " —west side.—Agriculture.
5th " —east side.—Auditor General.
4th " —Interior.
2nd " —Immigration.
1st " —Immigration (west side).
1st " —Interior (east side).

Militia building.—East side. All floors occupied by Militia and Defence as also part of floor No. 6 on west side and whole of floor No. 7 west side.
Customs Statistics occupies 1st, 2nd and 3rd floors west side.
Interior Department part 5th floor and whole of 6th floor, west side.

Queen street building.—By Agriculture. Total floor area, 127,581 square feet.

Lessor.. .. .. Imperial Realty Co., Limited.
Term expires.. .. .. May 1, 1916, option of renewal as follows: "At expiration of lease His Majesty shall be entitled by giving notice in writing to lessors not later than May 1, 1915, to renew for 5 years from May 1, 1916 upon and subject to the same terms and conditions Except that the rental to be paid during renewal term shall be mutually agreed upon between the parties."
Rent.. .. .. $78,468.94 per annum.
Lessor pays special taxes, heating.
Lessee pays taxes, snow cleaning, water, street sprinkling and lighting.

No. 144.—Ottawa, Ont... .. .. First 2 flats and basement 326 and 328 Queen street. Floor area, 4,000 square feet.
Occupied by.. .. .. Agriculture.
Lessor.. .. .. Frank Jarman.
Term expires.. .. .. April 1, 1916.
Rent.. .. .. $130 per month.
Lessor pays taxes, water and heating.

No. 145.—Ottawa, Ont... .. .. Second and third floors and part of basement of lessor's building Nos. 124, 126 and 128 (south side), Queen street. Floor area, 9,160 square feet.
Occupied by.. .. .. First floor.—Interior Department.
Second floor.—Public Works Department.
Third floor.—Trade and Commerce.
Lessor.. .. .. Frank Jarman who subsequently sold premises to J. L. Rochester *et al.*
Term expires.. .. .. June 15, 1915 with option of renewal for 5 years or less.
Rent.. .. .. $6,200 per annum.
Lessors pay taxes and heating and give free use of elevator.
Lessee pays water.

No. 146.—Ottawa, Ont... .. .. Seven hundred and seventy square feet at 70 cents southeast corner 6th floor Journal building.
Occupied by.. .. .. Translator and Assistants of Department of Agriculture.
Lessor.. .. .. Journal Printing Co., Ltd.
Term expires.. .. .. Yearly.
Rent.. .. .. $539 per year.

No. 147.—Ottawa, Ont... .. .. Second, third, fourth and fifth floors of Journal building on Queen street near Bank, 16,560 square feet at 70 cents (See also additional space for Departments of Agriculture and Interior not inclusive in this lease).
Occupied by.. .. .. 2nd floor.—Auditor General Department.
3rd floor.—Interior Department.
6th floor.—Agriculture Department.
3rd, 4th and 5th floor.—Forestry Department.
5th floor.—Ottawa River Works.
5th floor.—Public Works Department.
Lessor.. .. .. Journal Printing Co., Limited.
Term expires.. .. .. January 12, 1919.
Rent.. .. .. $11,592 per annum, see also additional space for Departments of Agriculture and Interior.
Lessor pay all taxes and heating.

No. 148.—Ottawa, Ont... .. .. Six hundred and twenty-one square feet at 70 cents in basement Journal building, south-east corner.
Occupied by.. .. .. Forestry Branch of Interior.
Lessor.. .. .. Journal Printing Co., Ltd.
Term expires.. .. .. Yearly.
Rent.. .. .. $434.70 per annum.

No. 149.—Ottawa, Ont... .. .. Three stores on ground floor, the whole of 1st and 2nd floors and 4,800 superficial feet of basement of lessors' building corner Dalhousie and York street. Total floor area. 18,000 square feet.
Occupied by.. .. .. Stationery Branch Printing Bureau.
Lessor.. .. .. Patrick Labelle.
Term expires.. .. .. January 2, 1919
Rent.. .. .. $11,500 per annum.
Lessor pays taxes, water, heat and gives use of elevator.

No. 150.—Ottawa, Ont... .. .. Nos. 317, 319 and 321 Queen street together with the new building thereto annexed. Floor area, 16,000 square feet.
Occupied by.. .. .. Analyst and Testing Departments Inland Revenue.
Lessors.. .. .. J. B. & W. A. Lamb.
Term expires.. .. .. June 1, 1916.
Rent.. .. .. $2,660 per annum.
Lessor pays local improvements taxes, and water.
Lessee pays taxes (excepting as above) and heating.

No. 151.—Ottawa, Ont... .. .. Brick building 95 George street, 3,312 square feet.
Occupied by.. .. .. Warehouse room Printing Bureau.
Lessor.. .. .. J. P. Laurin.
Term expires.. .. .. May 1, 1915.
Rent.. .. .. $1,000 per year for first year, that is to May 1, 1914, and $1,200 for second year.
Lessor pays taxes and water.

No. 152.—Ottawa, Ont... .. .. Premises two stories high 64 and 66 George street. Floor area, 4,200 square feet.
Occupied by.. .. .. Storage for Militia Department.
Lessor.. .. .. Lord Furniture Co.
Term expires.. .. .. February 20, 1916.
Rent.. .. .. $150 per month.
Lessors pay taxes, water and insurance.

No. 153.—Ottawa, Ont... .. .. House No. 72 Elgin street. Floor area, 1,677 square feet.
Occupied by.. .. .. Additional accommodation for Printing and Stationery Department of Militia and Defence.
Lessor.. .. .. Dr. Frederick McKinnon.
Term expires.. .. .. One year from October, 1914.
Rent.. .. .. $65 per month.
Lessor pays all taxes and water and light.
Lessee provides heating.

No. 154.—Ottawa, Ont... Third and fourth floors of McNeill-Stewart building 198 and 200 Queen street. Floor area, 2,893 square feet.
Occupied by.. Additional accommodation for Auditor General.
Lessor.. E. R. McNeill and R. G. Stewart.
Term expires.. September 5, 1916.
Rent.. $1,850 per annum.
Lessors pay taxes and heating and provide elevator service.
Lessee pays water.

No. 155.—Ottawa, Ont... Basement of premises 174, 176 and 178 Wellington street. Floor area, 2,830 square feet.
Occupied by.. Lithographing Division Survey Branch, Militia and Defence.
Lessor.. W. H. Martin & Co.
Term expires.. December 4, 1916 with option to renew for two years at same rental.
Rent.. $900 per annum.
Lessors pay taxes, water, insurance and heating.
Lessees pay light.

No. 156.—Ottawa, Ont... Ground floor and first floor building on Metcalfe street between Slater and Laurier avenue west, known as "New Masonic Temple," 8,188 square feet at 75 cents a foot.
Occupied by.. Conservation Commission.
Lessor.. Ottawa Masonic Temple Limited.
Term expires.. November 15, 1918.
Rent.. $6,141 per annum.
Lessors pay taxes, heating and give use of elevator.
Lessees pay water, lighting and cleaning.

No. 157.—Ottawa, Ont... Mills building 188 Slater street, 3,185 square feet at 18 cents per foot.
Occupied by.. Storage accommodation Public Works Dept.
Lessor.. A. K. Mills & Son.
Term expires.. Yearly on 1st April.
Rent.. $573.30 per annum.

No. 158.—Ottawa, Ont... Third top floor of building on driveway, corner Emmett and Lewis streets in Capital building with access to building with free passage along the halls and stairways to 3rd floor. Floor area, 3,800 square feet.
Occupied by.. General Medical Service of Militia and Defence Department.
Lessor.. William Dowler Morris.
Term expires.. May 1, 1915 or two years from date of occupation (which was April 17, 1913) according to the wording of the lease there seems to be some doubt as to the exact date of expiry.
Rent.. $1,500 per annum.
Lessor pays taxes, water, insurance and heating and power for elevator.

No. 159.—Ottawa, Ont... Whole of building northeast corner of Metcalfe and Slater street, except 33 by 66 feet of lot upon which building stands, which is not built upon. Floor area 9,764 square feet.
Occupied by.. Interior and Surveyor General.
Lessor.. Ottawa Building Co.
Term expires.. May 1, 1918.
Rent.. $4,000 per annum.
Lessor pays special taxes and insurance.
Lessee pays taxes, excepting as above, water, heat, light and cleaning.

No. 160.—Ottawa, Ont... West half of lot No. 19 on south side of Wellington street, Nos. 102 and 104 Wellington street. Floor area, 5,232 square feet.
Occupied by.. Interior Department.
Lessor.. Ottawa Building Co., Ltd.
Term expires.. June 1, 1915 with option to renew for 5 years more at $2,500 a year.
Rent.. $1,840 per annum.
Lessors pay special taxes.
Lessees pay taxes, excepting as above, water, street sprinkling and snow cleaning.

No. 161.—Ottawa, Ont... Nos. 98, 100 south side Wellington street known as "Nagle building." Floor area, 5,506 square feet.
Occupied by.. Justice Department.
Lessor.. Ottawa Building Co., Limited.
Term expires.. May 1, 1918.
Rent.. $2,500 per annum.
Lessors pay special taxes and insurance.
Lessees pay taxes, excepting as above, water, heating, lighting and cleaning.

No. 162.—Ottawa, Ont... Stone building, south west corner Queen and Metcalfe street Nos. 94 and 96 Queen street also yard. Floor area, 7,129 square feet.
Occupied by.. Exhibition Branch Agriculture Department.
Lessor.. Ottawa Improvement Co., Ltd.
Term expires.. Yearly on 1st August.
Rent.. $1,000 per annum.
Lessor pays special taxes.
Lessees pay taxes, excepting as above, and water.

No. 163.—Ottawa, Ont... Second, third and fourth floors of new Central station building. Floor area, 23,761 square feet.
Occupied by.. Railway Commission, Board of.
Lessor.. Ottawa Terminals Railway Co.
Term expires.. November 1, 1916 with option to renew for 5 years or less under terms to be agreed upon between lessor and lessee.
Rent.. $19,500 per annum.
Lessors pay taxes, heating and power for elevators.
Lesseees pay water and light.

No. 164.—Ottawa, Ont... Basement, ground and first floors, brick building known as Imperial building south side Queen street, No. 138 (excepting that portion of basement used for heating plant and coal storage). Floor area, 11,162 square feet.
Occupied by.. Interior Department, Surveyor General.
Lessor.. Eliza Ann Pearson.
Term expires.. January 1, 1916.
Rent.. $5,400 per annum.
Lessor pays taxes, and heating.
Lessee pays water and lighting.

No. 165.—Ottawa, Ont... Easement for projection of about two feet beyond line of division between southeast corner of roof of Langevin block and property of G. H. Perley.
Lessor.. Geo. Halsey Perley, assigned to Graham Bros., April 30, 1903.
Term expires.. October 1, 1918 and is renewable for 21 years at expiry of each 21 years for which period lease is drawn.
Rent.. $5 per annum.

No. 166.—Ottawa, Ont... Three rooms on 2nd floor and 2 rooms on 3rd floor in Quebec bank building, Wellington street. Floor area, 1,500 square feet.
Occupied by.. Statistical Branch of Railways and Canals.
Lessor.. Quebec Buildings Limited.
Term expires.. May 1, 1915.
Rent.. $1,200 per annum.
Lessor pays taxes, water, insurance and heating.

No. 167.—Ottawa, Ont... Three upper stores of lessors building corner Rideau and Sussex streets, 62,907 square feet at 70 cents per foot.
Occupied by.. Marine and Fisheries.
Lessor.. A. E. Rea Co., Ltd.
Term expires.. Lease dated August 25, 1914. Five years from date of occupation.
Rent.. $44,034.90 per annum.
Lessor pays taxes, heating and elevator service.
Lessee pays water.

SESSIONAL PAPER No. 19

No. 168.—Ottawa, Ont... West office of ground floor of lessors building, Wellington street, 1,785 square feet.
Occupied by.. Rural Mail Service.
Lessor.. The Rideau Club.
Term expires.. May 1, 1917.
Rent.. $1,800 per annum.
Lessor pays taxes, water and heating.

No. 169.—Ottawa, Ont... Whole of Robinson block south side Queen street between Metcalfe and Elgin streets, except two stores and the basements under said stores. Floor area, 35,650 square feet.
Occupied by.. P. O. Department, Public Works Department and Customs Department.
Lessor.. Hiram Robinson.
Term expires.. September 1, 1915 with option to lessee to renew for 3 years at same rental.
Rent.. $14,000 per annum.
Lessor pays taxes, water, insurance and provides power for elevators.
Lessee pays heating, lighting and cleaning.

No. 170.—Ottawa, Ont... Lot No. 11 south side Wellington street.
Occupied by.. Public Works Department.
Lessor.. Slater Estate.
Term expires.. Monthly.
Rent.. $30 per month.
Lessor pays all taxes and water.

No. 171.—Ottawa, Ont... Building 172 Wellington street also yard and addition in rear two stories high along with basement. Floor area, 5,752 square feet.
Occupied by.. North West Mounted Police.
Lessor.. Robert Nicholas Slater.
Term expires.. March 15, 1910 since which we have been tenants from year to year.
Rent.. $1,140 per annum.
Lessee pays taxes, water, street sprinkling and snow cleaning.

No. 172.—Ottawa, Ont... Two flats at 109 Rideau street. Floor area, 2,600 square feet.
Occupied by.. Additional accommodation for Inspection Staff of Department of Militia and Defence.
Lessor.. W. R. Stroud.
Term expires.. February 20, 1916.
Rent.. $1,677 per annum.
Lessor pays all taxes and heating.
Lessee pays water.

No. 173.—Pincher Creek, Alta... Lower storey of building on west half of lot No. 2, plan 17430.
Occupied by.. Supervisor of Crows Nest Forest Reserve.
Lessor.. Kathleen Levasseur.
Term expires.. Year to year from September 16.
Rent.. $30 per month.
Lessor pays all taxes.

No. 174.—Portage la Prairie, Man... First floor. Premises on Tupper street, 40 by 60 feet.
Occupied by.. Customs Examining Warehouse.
Lessor.. John J. Garland.
Term expires.. April 8, 1915.
Rent.. $30 per month.
Lessor pays all taxes.
Lessee pays heating and $5 a month to janitor.

No. 175.—Port Arthur, Ont... Room No. 9, second floor corner Lorne and Cumberland streets.
Occupied by.. Immigration.
Lessor.. Bank of Hamilton.
Term expires.. November 15, 1915.
Rent.. $30 per month.

No. 176.—Port Arthur, Ont... Premises in "Crooks Block."
Occupied by.. Engineers P. W. Department.
Lessor.. Originally J. J. Carrick, now Royal Bank of Canada.
Term expires.. Monthly at end of each month.
Rent.. $55 per month.

No. 177.—*Prince Albert, Sask.*.. .. .. West half of second story frame building, 161 street, south side.
Occupied by.. .. .. Forestry Branch of Interior.
Lessor.. .. .. Frederic Charles Baker.
Term expires.. .. .. May 1, 1915.
Rent.. .. .. $80 per month.
Lessor pays all taxes.

No. 178.—*Prince Albert, Sask.*.. .. .. Three offices in Mitchell block on first floor with windows facing on Central avenue and 11th street east.
Occupied by.. .. .. Engineers, Public Works Department.
Lessors.. .. .. O'Connor and Sibbald.
Term expires.. .. .. November 1, 1914.
Rent.. .. .. $75 per month.
Lessor pays heating.
Lessee pays taxes.

No. 179.—*Prince Rupert, B.C.*.. .. .. First story of lessor's building on 1st avenue.
Occupied by.. .. .. Examining warehouse.
Lessor.. .. .. Joseph Edward Merryfield.
Term expires.. .. .. June 1, 1917.
Rent.. .. .. $175 per month.
Lessor pays taxes, water, heating and janitor service.

No. 180.—*Prince Rupert, B.C.*.. .. .. Whole of ground floor together with rooms Nos. 1 to 9 inclusive on first floor of lessors building, known as the "Federal Block."
Occupied by.. .. .. Inland Revenue, Marine and Fisheries, Post Office and Customs and Public Works Department.
Lessor.. .. .. Northern B. C. Development Co.
Term expires.. .. .. June 1, 1916, with option to renew for another year on same terms and conditions on giving lessors 6 months' notice in writing before expiry of present lease.
Rent.. .. .. $500 per month.
Lessors pay taxes and heating.
Lessee pays water.

No. 181.—*Quebec, Que.*.. .. .. Offices in building, 103 St. John street.
Occupied by.. .. .. Engineer in connection with river St. Charles improvement.
Term expires.. .. .. May 1, 1915.
Lessor.. .. .. J. S. Bergeron.
Rent.. .. .. $350 per annum.
Lessor pays taxes, water, heating, cleaning and lighting.

No. 182.—*Quebec, Que.*.. .. .. Whole of second floor, 101 St. John street, also toilet room.
Occupied by.. .. .. Colonization Agent.
Lessors.. .. .. J. S. Bergeron and A. G. Verret.
Term expires.. .. .. April 30, 1915. Tenant has right to terminate at end of each year on written notice before January 15 in each year.
Rent.. .. .. $450 per annum.
Lessors pay taxes, heat and light.

No. 183.—*Quebec, Que.*.. .. .. Ground floor (1,761 square feet) and portion of basement (1,216 square feet) in Dominion building, St. Peter street.
Occupied by.. .. .. P. O. station "B."
Lessor.. .. .. Dominion Fish and Fruit Ltd.
Term expires.. .. .. May 1, 1918.
Rent.. .. .. $3,000 per annum.
Lessor pays taxes, water, heating, cleaning and removal of snow.

No. 184.—*Quebec, Que.*.. .. .. Room 15 x 14 in lessor's premises.
Occupied by.. .. .. J. A. Simard of Seeds Branch of Agriculture Department.
Lessor.. .. .. Mrs. M. M. Germain, 38 Ste. Anne st., Quebec.
Term expires.. .. .. Month to month.
Rent .. .. $25 per month.
Lessor provides telephone and telephone service and caretaking and part furnishings and pays for heating and lighting.

No. 185.—Quebec, Que... Brick house and grounds on Little River road.
Occupied by.. House for Medical Superintendent, Quebec Immigration Hospital.
Lessor.. John Jack.
Term expires.. May 1, 1918.
Rent.. $600 per annum.
Lessor pays taxes and water.

No. 186.—Quebec, Que... Room 17 by 16 feet, No. 1, Couillard street, upper floor.
Occupied by.. P. O. Case Examiner, D. Blondeau.
Lessor.. Mrs. O. Paris.
Term expires.. Letter of Mrs. Paris of May 14, 1914, says Department may keep office as long as wanted, but not less than a year.
Rent.. $20 per month.
Lessor pays taxes, water, snow cleaning, heating, lighting and caretaking.

No. 187.—Quebec, Que... One thousand eight hundred square feet at $1,25 per square foot. Rooms 500, 501, 502 and 503 on 5th floor lessors building, corner of St. Joseph and Crown streets, Quebec.
Occupied by.. District Engineer.
Lessor.. Quebec Railway Light, Heat and Power Co.
Term expires.. March 1, 1915 with option of renewal for one year on same terms and conditions on 3 months notice prior to expiry of lease.
Rent.. $2,250 per annum.
Lessor pays taxes, water, heat, elevator service and janitor.

No. 188.—Quebec, Que... Three rooms on 3rd floor of lessors's building.
Occupied by.. Pilotage officers.
Lessor.. The Richelieu and Ontario Navigation Co.
Term expires.. May 1, 1915.
Rent.. $55 per month.
Lessors pay taxes, water and heating.
Lessee pays lighting.

No. 189.—Quebec, Que... One room, Richelieu & Ontario Navigation Co.'s Building.
Occupied by.. General Superintendent of Pilots.
Lessor.. Richelieu and Ontario Navigation Co.
Term expires.. June 1, 1915.
Rent.. $180 per annum.
Lessor pays taxes, water and heating.
Lessee pays lighting.

No. 190.—Quebec, Que... Two offices, 3rd floor, 116 Mountain Hill street.
Occupied by.. Captain Lachance for Marine School officers.
Lessor.. Arthur E. Scott.
Term expires.. April 30, 1918, with right to lessee to terminate on May 1 of each of 4 years and 11 months from June 1, 1913, provided notice in writing is given to lessor on or before February 1 previous; and in case of sale of premises lessor has right to terminate on May 1 each year on written notice on or before February 1 previous.
Rent.. $295 per annum.
Lessor to place and maintain in good order the inside blinds and put in place and remove in due time the double windows and outside blinds. Lessor pays taxes, water, heat, light and cleaning.

No. 191.—Quebec, Que... Three rooms, one vault and vestibule, 23 St. Louis street.
Occupied by.. Archives.
Lessor.. Miss Margaret White.
Term expires.. April 30, 1915.
Rent.. $30 per month.
Lessor pays taxes, water, heat, removal of snow.

No. 192.—Regina, Sask... Ground floor in Foret Building, South Railway street.
Occupied by.. Customs Express and Examining Warehouse.
Lessor.. Gabriel E. Foret.
Term expires.. October 1, 1915.
Rent.. $250 per month.
Lessor pays taxes, water, and heats "front of said premises."
Lessee pays light and caretaking.

No. 193.—*Revelstoke, B.C.* .. Rooms 1, 4 and 5, on 2nd floor, Canadian Bank of Commerce building.
Occupied by .. Engineers.
Lessor .. Canadian Bank of Commerce.
Term expires .. February 1, 1915, with option to renew for another 12 months on one month's notice in writing, but lease may be terminated during this extension at any time on giving 90 days' notice in writing.
Rent .. $75 per month.
Lessor pay taxes, heat and caretaking.
Lessee pays lighting.

No. 194.—*Revelstoke, B.C.* .. Rooms 2 and 3 of Canadian Bank of Commerce building.
Occupied by .. Chief Fire Ranger.
Lessor .. Canadian Bank of Commerce.
Term expires .. December 16, 1914.
Rent .. $50 per month.
Lessor pays all taxes, heating and cleaning.

No. 195.—*Ridgetown, Ont.* .. Portion of municipal building.
Occupied by .. Post office.
Lessor .. Town of Ridgetown.
Time expires .. December 1, 1915.
Rent .. $525 per annum of which $300 is paid by Government and $225 by postmaster.
Lessors pay all taxes. Lessors provide heat and light at a cost to the Postmaster not exceeding $150 per annum.

No. 196.—*Roblin, Man.* .. Second floor, lot 6 in block 4 in townsite of Roblin, Man. Registered Plan No. 352.
Occupied by .. Supervisor of Riding Mountain Reserve.
Lessor .. Frederick Young Newton.
Term expires .. December 1, 1916.
Rent .. $27.50 per month.
Lessor pays taxes, heat, light and cleaning.

No. 197.—*Rocky Mountain* .. Whole of a frame metal covered building on Center street.
Occupied by .. Forest Supervisor.
Lessor .. Mary Catherine Green, wife of T. D. Green.
Term expires .. October 1, 1914, and afterwards from month to month.
Rent .. $25 per month.
Lessor pays all taxes.

No. 198.—*St. Anne de Bellevue, Que.* .. Room 25 by 25 feet in municipal building, with use of shed for storage of wood and coal.
Occupied by .. Post office.
Lessor .. Municipality of St. Anne de Bellevue.
Term expires .. From year to year on June 1, each year.
Rent .. $250 per annum.
Lessors pay taxes, water, removal of snow.
Lessee pays heating and lighting.

No. 199.—*St. Eustache, Que.* .. Part of first floor of town hall—524 feet 3 in.
Occupied by .. Post office.
Lessor .. Village of St. Eustache.
Term expires .. February 1, 1919.
Rent .. $300 per annum.
Lessor pays all taxes, heating and snow cleaning.

No. 200.—*St. Félix de Valois, Que.* .. Room in front of a brick veneered house, south side Main street.
Occupied by .. Post office.
Lessor .. Maxime Crepeau.
Term expires .. Yearly on February 23 each year.
Rent .. $100 per annum; $38 by Post Office and $62 by Public Works Department.
Lessor pays taxes, water, removal of snow from roof, heat, light and cleaning.

SESSIONAL PAPER No. 19

No. 201.—St. Gabriel de Brandon, Que. . . . . . First story of house on north corner Michaud and St. Pierre streets.
Occupied by. . . . . Post office.
Lessor. . . . . Télesphore Michaud.
Term expires. . . . . February 22, 1915.
Rent. . . . . $200 per annum.
Lessor pays taxes, heat, removal of snow from roof and cleaning.
Lessee pays Lessor $48 a year for lighting.

No. 202.—St. Georges de Beauce, Que. . . . . . First story of building, 20 by 30 feet.
Occupied by. . . . . Post office.
Lessor. . . . . Mrs. P. L. Moisan.
Term expires. . . . . September 1, 1917, with option of renewal for another 5 years on same terms.
Rent. . . . . $300 per annum. $200 paid by Department and $100 paid by Postmaster.
Lessor pays taxes, removal of snow, heat, light and cleaning.

No. 203.—St. Jean de Matha, Que. . . . . . Wooden house, 36 by 40 feet, 2 storeys, No. 300 of first row, St. Louise.
Occupied by. . . . . Post office.
Lessor. . . . . J. Baptiste Turcotte.
Term expires. . . . . July 1, 1916.
Rent. . . . . $44 per annum of which Postmaster pays $19 and Department $25.
Lessor pays taxes, heating and removal of snow.

No 204.—St. John, N.B. . . . . . Three rooms on third floor of Board of Trade building, 162 Prince William street
Occupied by. . . . . Resident Engineer G. W. Steeves, in connection with harbour improvements.
Lessor. . . . . St. John Board of Trade.
Term expires. . . . . June 1, 1916.
Rent. . . . . $300 per annum.
Lessor pays heating, lighting and janitor.

No. 205.—St. John, N.B. . . . . . Six offices in upper flat of Canadian Bank of Commerce building.
Occupied by. . . . . Dr. Frink, V.S., of Department of Agriculture, Engineer M. & F., Examiner Masters and Mates, and Navigation School.
Lessor. . . . . Canadian Bank of Commerce.
Term expires. . . . . May 1, 1916.
Rent. . . . . $1,200 per annum.
Lessors pay taxes and heating.
Lessee pays water.

No. 206.—St John, N.B. . . . . . Second story of No. 4 Wharf Wharehouse and Ramp.
Occupied by. . . . . Immigration.
Lessor. . . . . City of St. John.
Term expires. . . . . December 31, 1914.
Rent. . . . . $2,105.32 ptr annum.
Lessees pay City of St. John consumption rates for water supplied.

No. 207.—St. John, N.B. . . . . . Lot, upper end No. 5, Warehouse, Sand Point.
Occupied by. . . . . Site for construction of a shelter at Sand Point for the ship labourers.
Lessor. . . . . City of St. John, N.B
Term expires. . . . . January 1, 1918. Renewable for other seven years, but should lessor refuse to renew, then city to pay lessee the sum spent in improvements.
Rent. . . . . Two cents per annum.
No taxes.

No. 208.—St. John, N.B. . . . . . Ground rent for portion of site of Customs House.
Lessor. . . . . City of St. John, N.B.
Rent. . . . . $22 per annum.

No. 209.—St. Leonards, N.B. . . . . . Room in Immigration Inspector's house.
Occupied by. . . . . Immigration Inspector.
Lessor. . . . . Ozite Roy.
Term expires. . . . . Monthly at end of each month.
Rent. . . . . $7 per month.

No. 210.—St. Rose, Que... .. .. Ground floor of school house.
Occupied by.. .. .. Post office.
Lessor.. .. .. Village of St. Rose, Que.
Term expires.. .. .. May 1, 1917, with option of renewal for five years at same terms on mutual consent of the parties. Lessor entitled to three months' notice of renewal.
Rent.. .. .. $200 per annum, of which Postmaster pays $38 and Department $162.
Lessor pays taxes, water, removal of snow, heat and light.

No. 211.—St. Stephen, N.B... .. .. Rooms in building, corner King and Water streets, with right to use of basement for storage of fuel, etc., and right of entrance from Water street.
Occupied by.. .. .. Immigration office.
Lessor.. .. .. Originally John D. Chipman, now David Johnson.
Term expires.. .. .. August 13, 1916.
Rent.. .. .. $150 per annum.

No. 212.—Saskatoon, Sask... .. .. Two rooms in lessor's premises with use of lane for entrance, also use of lavatory in common with other tenants.
Occupied by.. .. .. Inspector of Weights and Measures.
Lessor.. .. .. John H. Cameron and Annie M. Johnstone.
Term expires.. .. .. November 11, 1915, with option of renewal for one year.
Rent.. .. .. $126 per month.
Lessors pay heating and lighting.

No. 213.—Saskatoon, Sask... .. .. Suites Nos. 412 and 415 in lessor's building, corner of 21st street and 1st avenue.
Occupied by.. .. .. Superintendent Railway Mail Service and Staff.
Lessor.. .. .. Imperial Canadian Trust Co.
Term expires.. .. .. May 1, 1915, with option to renew for one year on same terms and conditions on three months' notice prior to expiry of lease.
Rent.. .. .. $789 per annum.
Lessor pays all taxes, water service, heating, cleaning and elevator service.

No. 214.—Saskatoon, Sask... .. .. Suite No. 212, in building corner 21st street and 1st avenue, known as the Canada Building. Floor area, 477 square feet.
Occupied by.. .. .. Excise Inland Revenue.
Lessor.. .. .. Imperial Canadian Trust Co.
Term expires.. .. .. November 1, 1916.
Rent.. .. .. $600 per annum.
Lessors pay taxes, heating, cleaning and power for elevator.
Lessee pays lighting.

No. 215.—Saskatoon, Sask... .. .. Ground floor, lessor's building, corner 23rd street and 2nd avenue; floor area, about 4,000 square feet.
Occupied by.. .. .. Customs.
Lessor.. .. .. Chester Thompson.
Term expires.. .. .. December 12, 1915, with option to renew for one year on three months' notice to lessor, prior to expiry of lease.
Rent.. .. .. $500 per month.
Lessor pays taxes, water, heating and cleaning.

No. 216.—Saskatoon, Sask... .. .. Ground floor and part of basement, solid brick and terra cotta store building, N.E. corner 20th street and 3rd avenue. Floor area of ground floor, 1,664 square feet; floor area of basement, 676 square feet.
Occupied by.. .. .. Examining warehouse.
Lessor.. .. .. J. H. C. Willoughby and A. J. E. Sumner.
Term expires.. .. .. June 17, 1916.
Rent.. .. .. $1,800 per annum.
Lessors pay all taxes except business tax, water and heating.

SESSIONAL PAPER No. 19

No. 217.—Saskatoon, Sask. . . . . . Northwest corner of 3rd avenue and 22nd street, in new fireproof building with basement and ground floor only.
Occupied by. . . . . Lands office.
Lessor. . . . . Wilson Bros.
Term expires. . . . . October 1, 1915, with option or renewal for one year on same terms and conditions.
Rent. . . . . $300 per month.
Lessors pay taxes, water, heating (steam heat).
Lessee pays lighting and caretaking.

No. 218.—Sherbrooke, Que. . . . . . Whole of first floor of a building, bearing civic Nos. 3, 5 and 7, Albert street. Floor area, 2,714 square feet. Rent equals 36 cents per square foot.
Occupied by. . . . . Post Office Inspector.
Lessor. . . . . E. J. L. Page and James R. Sangster, carrying business as Page Printing and Binding Co.
Term expires. . . . . September 15, 1918, with option to renew for five years on same terms and conditions; but lessees have privilege to terminate present lease on September 15, 1917, or the renewal thereof at the end of third or fourth year of said renewal period by giving lessors three months' notice in writing, three months previous to May 1, 1917, or previous to the expiration of said fourth year, notice in writing of his intention to terminate this lease at said date or the renewal thereof at the end of the third or fourth year.
Rent. . . . . $996 per annum.
Lessors pay taxes, water, insurance, heating, cleaning, including halls and provide power for freight elevator, which can be used day and night in common with other tenants.

No. 219.—Sherbrooke, Que. . . . . . Portion of top floor and use of two vaults in lessor's building. Floor area, 1,863 sq. ft.
Occupied by. . . . . District Engineer, Public Works Department.
Lessor. . . . . Quebec Central Railway.
Term expires. . . . . February 1, 1917, with option to renew for two years on three months' notice in writing, prior to expiry of lease.
Rent. . . . . $1,400 per annum.
Lessors pay taxes, water, heat, cleaning, elevator service.

No. 220.—Swan River, Man. . . . . . Southwest corner room in lessor's law office.
Occupied by. . . . . Immigration.
Lessor. . . . . Benjamin E. Rothwell.
Term expires. . . . . September 5, 1915.
Rent. . . . . $15 per month.

No. 221.—Swift Current, Sask. . . . . . Two shops fronting on Railway street, the corner shop and four shops immediately adjoining the corner shop to the north, situate on east side of 10th avenue, 50 feet on Railway street and 77 feet on Tenth Avenue.
Occupied by. . . . . Post office.
Lessor. . . . . Geo. De la Salle, rancher, Calgary.
Term expires. . . . . November 20, 1915.
Rent. . . . . $1,800 per annum.
Lessor pays taxes and insurance.

No. 222.—Swift Current, Sask. . . . . . Portion of first floor, new brick building on lot 10, block 66; floor area, 2,200 square feet.
Occupied by. . . . . Lands.
Lessor. . . . . J. A. Johnson.
Term expires. . . . . December 1, 1915.
Rent. . . . . $2,100 per annum.
Lessor pays taxes, water and heating.

No. 223.—Three Rivers, Que. . . . . . First floor of a building, corner Notre Dame and St. Antoine streets. Floor area, 35 by 23 feet.
Occupied by. . . . . Post Office Inspector.
Lessor. . . . . Knights of Columbus Council 1001.

No. 223.—Three Rivers, Que.—Con.
Term expires.. .. .. May 1, 1919. Five year lease from May 1, 1914, with option to lessee to terminate at expiry of each year on three months' notice in writing, prior to end of year.
Rent.. .. .. $420 per annum.
Lessors pay taxes, water and heat.

No 224.—Toronto, Ont... .. .. Premises at 758 Queen street.
Occupied by.. .. .. P. O. Station "G."
Lessor.. .. .. Mrs. Mary A. Barrett.
Term expires.. .. .. December 1, 1914, and thereafter under the same terms and conditions on a monthly tenancy until such time as P. O. Station "G," now under construction on the corner of Queen E. and Saulter streets, is ready for occupation.
Rent.. .. .. $200 per month.
Lessor pays taxes, water, insurance, and heating.

No. 225.—Toronto, Ont... .. .. Offices Nos. 334, 335, 336, 611-2, 613-4, together with vault No. 27 in lessor's building.
Occupied by.. .. .. District Engineer.
Lessor.. .. .. Confederation Life Association.
Term expires.. .. .. September 14, 1916.
Rent.. .. .. $2,500 per annum.
Lessors pay taxes, water, heating, caretaking, and provide use of elevators.

No. 226.—Toronto, Ont... .. .. Five offices on second floor, 32 Front street West. Floor area, 1,080 square feet.
Occupied by.. .. .. Steamboat Inspector.
Lessor.. .. .. Geo. J. Foy, Ltd.
Term expires.. .. .. December 11, 1915.
Rent.. .. .. $1,300 per annum.
Lessors pay taxes, water, heat and caretaking.

No. 227.—Toronto, Ont... .. .. Room 23 in Foy building.
Occupied by.. .. .. Henry W. King, Inspector of Masters and Mates.
Lessor.. .. .. Geo. J. Foy, Ltd.
Term expires.. .. .. Monthly at end of each month.
Rent.. .. .. $30 per month, and $3.33⅓ per month for caretaking.

No. 228.—Toronto, Ont... .. .. Part of Union Station with use of lavatories.
Occupied by.. .. .. Immigration.
Lessor.. .. .. Grand Trunk Railway Co.
Term expires.. .. .. Year to year from January 1, but lessors have right to terminate at any time on one month's notice in writing.
Rent.. .. .. $1,000 per annum.
Lessors pay taxes (except taxes on personal property, which Lessees pay) heat, light.
Lessees pay water.

No. 229.—Toronto, Ont... .. .. Part of water lot No. 48, on registered plan 5a, S.W. corner of Front and Lorne streets, with company's building thereon.
Occupied by.. .. .. P.O. Station "A."
Lessor.. .. .. Grand Trunk Railway.
Term expires.. .. .. Month to month. Railway to have right to terminate lease by giving one month's notice in writing—changed to three monhs' notice when additional space taken, September 2, 1910.
Rent.. .. .. $200 per month.
Lessors pay taxes.

No. 230.—Toronto, Ont... .. .. Additional space in Union Station building, beyond space now occupied.
Occupied by.. .. .. P.O. Station "A."
Lessor.. .. .. Grand Trunk Railway.
Term expires.. .. .. Month to Month. Lease of whole of premises now to run from month to month to be terminated by either on three months' notice in writing.
Rent.. .. .. $100 per month.
Lessors pay heating and lighting.

SESSIONAL PAPER No. 19

No. 231.—Toronto, Ont... Little Union Hotel, 19 Simcoe street.
Occupied by.. Immigration.
Lessor.. Geo. B. Hance.
Term expires.. April 1, 1916.
Rent.. $127.50 per month.
Lessor pays all taxes.

No. 232.—Toronto, Ont... Ground floor of a three-story brick building on west side of Main street, East Toronto, with right of way over the yard from side entrance to lane and right of way over the lane in rear to Gerard street.
Occupied by.. Postal Station "H."
Lessor.. Andrew McMillan and Wm. Costain.
Term expires.. October 1, 1918.
Rent.. $75 per month.
Lessors pay all taxes and heating.

No. 233.—Toronto, Ont... Ground floor and basement of premises S.W. corner Bloor and Markham streets.
Occupied by.. Postal Station "E."
Lessor.. Alexander Mullin..
Term expires.. August 1, 1916, with option to renew for three years on same terms.
Rent.. $1,440 per annum.
Lessor pays taxes and heating.
Lessee pays water.

No. 234.—Toronto, Ont... Portion of premises in Rossin House block—store No. 121 King street west, with basement beneath same.
Occupied by.. Postal Station "B."
Lessor.. Rosin House Hotel Co.
Term expires.. August 8, 1915.
Rent.. $1,800 per annum.
Lessors pay special taxes and heating.
Lessee pays water.

No. 235.—Transcona, Man... Ground floor and basement of central portion of building on lots 22, 23 and 24, in block 22, and grounds in connection with same.
Occupied by.. Post office.
Lessor.. Wm. McFarlane.
Term expires.. April 1, 1918.
Rent.. $900 per annum—$650 paid by the Department and $250 by Postmaster.
Lessor pays taxes, water, heat, light and cleaning.

No. 236.—Trois Pistoles, Que... Portion of ground floor Town Hall building.
Occupied by.. Post office.
Lessor.. Town of Trois Pistoles.
Term expires.. Yearly on October 1.
Rent.. $100 per annum.
Lessors pay taxes, removal of snow. Postmistress pays water, heating, lighting and cleaning.

No. 237.—Unity, Sask... Lots 27, 28 and 29,block 6, in townsite of Unity.
Occupied by.. Immigration building.
Lessor.. Grand Trunk Pacific Development Co.
Term expires.. April 1, 1931, with option to renew for 21 years more at same rental.
Rent.. $1 per annum.

No. 238.—Vancouver, B.C... Rooms 614, 615, 617 and 618 in Birks' building, on 6th floor; 1,118 square feet equals $1.46½ per square foot.
Occupied by.. Superintendent of Dredges.
Lessor.. Wm. Massay Birks, John Henry Birks and Gerald Walker Birks, Montreal.
Term expires.. November 30, 1915.
Rent.. $1,620 per annum.
Lessors pay heat, light to extent of 29 lamps of 25 Watts, janitor and elevator service.

No. 239.—Vancouver, B.C... .. .. Two rooms, Empire building, 603 Hastings street, W. Vancouver. Floor area, 748 square feet.
Occupied by.. .. .. Captain Charles Eddie, Examiner of Masters and Mates.
Lessor.. .. .. Julius A. Brown.
Term expires.. .. .. Monthly at end of each month.
Rent.. .. .. $40 per month.

No. 240.—Vancouver, B.C... .. .. Room in lessor's railway depot, 2,524 square feet at $1.22 per square foot.
Occupied by.. .. .. Sorting room P.O. Department.
Lessor.. .. .. Canadian Pacific Railway.
Term expires.. .. .. Five years from date of occupation. Lease dated July 4, 1914.
Rent.. .. .. $3,079.28 per annum.
Lessors pay all taxes and heating.

No. 241.—Vancouver, B.C... .. .. Three rooms on 2nd floor. Chinese detention shed adjacent to shed. No. 1 wharf front, Vancouver, and right of access over lessor's property by usual channels.
Occupied by.. .. .. Office of Immigration and temporary detention of immigrants and storage.
Lessor.. .. .. Canadian Pacific Railway.
Term expires.. .. .. Year to year from January 1.
Rent.. .. .. $25 per month.

No. 242.—Vancouver, B.C... .. .. Portion of Burrard Inlet, adjoining lot 185, group 1, New Westminster district, in city of Vancouver.
Occupied by.. .. .. Site for detention shed.
Lessor.. .. .. Canadian Pacific Railway.
Term expires.. .. .. May 1, 1934. Renewable at expiry of every 21 years period.
Rent.. .. .. $1 per annum.
Lessee pays taxes.

No. 243.—Vancouver, B.C... .. .. Cavity under sidewalk, situated on east side of Howe street, and having a superficial area of 107 superficial feet.
Lessor.. .. .. City of Vancouver.
Term expires.. .. .. On one month's written notice at any time.
Rent.. .. .. $5 on execution of agreement and for the permission granted $5.35 yearly.

No. 244.—Vancouver, B.C... .. .. Ground floor building, west side Main street between Sixteenth and Seventeenth avenue, bearing civic No. 3235 Main street, and also one room on Seventeenth avenue 18 by 65 feet.
Occupied by.. .. .. Post Office Station "C."
Lessor.. .. .. Geo. Wm. Dunlap.
Term expires.. .. .. July 1, 1915.
Rent.. .. .. $90 per month.
Lessor pays all taxes and provides such water service as is supplied by Municipality of S. Vancouver, also heating.

No. 245.—Vancouver, B.C... .. .. First, second, third and fourth floors, 249 Hastings street east. Total square feet in this and in premises rented under lease 9542—5,814 square feet.
Occupied by.. .. .. P.O. "B," etc.
Lessor.. .. .. Mrs. Robert Hamilton.
Term expires.. .. .. Monthly.
Rent.. .. .. $335 per month, till new building is ready for occupation. Note—Between this and other premises rented from Mrs. Hamilton, rent for the two not to exceed $600 per month.
Lessor pays water and heating.

No. 246.—Vancouver, B.C... .. .. Ground floor of building 249 Hastings street.
Occupied by.. .. .. P.O. Station "B."
Lessor.. .. .. Mrs. Robt. Hamilton.
Term expires.. .. .. April 15, 1918 (lease No. 9542).
Rent.. .. .. $265 per month for first two years and $315 per month for the following three years.
Lessor pays taxes, water and heating.

No. 247.—Vermilion, Alta.. .. .. Part of lessor's station grounds.
Occupied by.. .. .. Site for Immigration Hall.
Lessor.. .. .. Canadian Northern Railway Company.
Term expires.. .. .. On one month's notice from either lessor or lessee.
Rent.. .. .. $1 per annum.
Lessor pays taxes and water.

No. 248.—Victoria, B.C... .. .. Part of ground floor and basement of Belmont building.
Occupied by.. .. .. Customs Postal Parcels Branch and Express Department.
Lessor.. .. .. Belmont Buildings, Ltd.
Term expires.. .. .. June 3, 1915.
Rent.. .. .. $200 per month.
Lessor pays taxes, water and heating.

No. 249.—Victoria, B.C... .. .. Rooms 505, 506 and 507 on fifth floor of building at corners of Government, Humboldt and Gordon streets. Floor space, room 505, 306 square feet; floor space, room 506, 217 square feet; floor space, room 507, 306 square feet.
Occupied by.. .. .. District Engineer.
Lessor.. .. .. The Belmont Buildings, Ltd.
Term expires.. .. .. July 1, 1916.
Rent.. .. .. $110 per month.
Lessors provide water and elevator service.
Rent payable at the office of Cross & Co., the duly appointed agents for the time being or at such other place in the city of Victoria as the Landlords may designate.
Tenant to pay the Landlords all charges in respect of water, gas, power or electric light used on the demised premises as indicated by the meter over and above the amount thereof to be supplied free of charge by the Landlords as hereinafter mentioned.
Clause 3 sub-section (2) the Landlord covenants to light the public halls, spaces and passages, to heat the premises and to furnish light and water for the tenants use and janitor service for the purpose of cleaning the premises, Provided: that the supply of electric light for the said demised premises free of charge shall be limited to not exceeding one candle power to every 5 square feet of floor space, and the tenant shall pay for all artificial light supplied beyond that extent at the rate generally charged therefore in Victoria aforesaid.
Clause 3 sub-section (4) the Landlords to supply the tenant with electricity for motive power to be used in running such machines as Landlords may approve of in writing, such electricity to be paid for by the tenant at the rates generally therefor in Victoria.
Clause 2 sub-section (11) provides that the tenant shall permit the janitor or other emp'oyees of the Landlords to enter the premises for the purpose of cleaning same.
Clause 2 sub-section (13) Landlord not liable for damage from leaks.
Clause 2 sub-section (14) binds the tenant not to use any electric current for lighting or motive purposes or any artificial lighting or motive power, except such as shall be supplied by the Landlords meter laid by or on behalf of the Landlords.
Clause 2 sub-section (11) provides that the Landlord or his agents may enter premises at any time to inspect or execute repairs.

No. 250.—Victoria, B.C... .. .. Room 504 on fifth floor of building at corners of Government, Humboldt and Gordon streets, 277 square feet.
Occupied by.. .. .. Engineers Public Works Department.
Lessor.. .. .. Belmont Buildings, Ltd.
Term expires.. .. .. September 1, 1916.
Rent.. .. .. $40 per month.
Lessors pay water and elevator service.
Rent payable at the office of Cross & Co., the duly appointed agents for the time being or at such other place in the city of Victoria as the Landlords may designate.

No. 250.— Victoria, B.C.—Con.

Tenant to pay the Landlords all charges in respect of water, gas, power or electric light used on the demised premises as indicated by the meter over and above the amount thereof to be supplied free of charge by the Landlords as hereinafter mentioned.

Clause 3 sub-section (2) the Landlord covenants to light the public halls, spaces and passages, to heat the premises and to furnish light and water for the tenants use and janitor service for the purpose of cleaning the premises, Provided: that the supply of electric light for the said demised premises free of charge shall be limited to not exceeding one candle power to every 5 square feet of floor space, and the tenant shall pay for all artificial light supplied beyond that extent at the rate generally charged therefor in Victoria aforesaid.

Clause 3 sub-section (4) the Landlords to supply the tenant with electricity for motive power to be used in running such machines as Landlords may approve of in writing, such electricity to be paid for by the tenant at the rates generally therefor in Victoria.

Clause 2 sub-section (11) provides that the tenant shall permit the janitor or other employees of the Landlords to enter the premises for the purpose of cleaning same.

Clause 2 sub-section (13) Landlord not liable for damage from leaks.

Clause 2 sub-section (14) binds the tenant not to use any electric current for lighting or motive purposes or any artificial lighting or motive power, except such as shall be supplied by the Landlords meter laid by or on behalf of the Landlords.

Clause 2 sub-section (11) provides that the Landlord or his agents may enter premises at any time to inspect or execute repairs.

No. 251.— Victoria, B.C... .. .. Shelter in one of the freight sheds of C. P. Ry. Co.'s wharf for fumigating plant.
Lessor.. .. .. Canadian Pacific Railway.
Term expires.. .. .. Monthly.
Rent.. .. .. $2.50 per month.

No. 252.—Victoria, B.C... .. .. Three stores corner of Langley and Broughton streets, "Ames-Holding Building."
Occupied by.. .. .. Temporary Examining Warehouse.
Lessor.. .. .. Alexander James Coholan McDermott.
Term expires.. .. .. January 1, 1915, with option to renew for two years at rental to be mutually agreed upon.
Rent.. .. .. $500 per month.
Lessor pays taxes.
Lessee pays water.

No. 253.— Victoriaville, Que.. .. .. Drain site.
Lessor.. .. .. Grand Trunk Railway Company.
Term expires.. .. .. Permission may be withdrawn at any time.
Rent.. .. .. $1 per annum.
Lessee pays taxes.

No. 254.—Virden, Man.. .. .. School building.
Occupied by.. .. .. Immigration.
Lessor.. .. .. School District of Virden, Man.
Term expires.. .. .. March 15, 1915.
Rent.. .. .. $250 per annum.

No. 255.—Wadena, Sask.. .. .. Lots 5 and 6, block 23, corner of Railway avenue and Third street, in townsite of Wadena.
Occupied by.. .. .. Immigration.
Lessor.. .. .. McKenzie, Mann Co., Ltd.
Term expires.. .. .. January 1, 1918. Lessee to vacate at any time on thirty days' notice and proportionate rental to be returned.
Rent.. .. .. $1 per annum.
Lessee pays taxes.

No. 256.—Westmount, Que.. .. .. Tenement corner St. Catharines and Green streets, 166, 168 and 172 Green avenue, and 4200 St. Catherine street, Westmount.
Occupied by.. .. .. Post office.
Lessor.. .. .. Mrs. Catherine McCall.
Term expires.. .. .. December 14, 1914.
Rent.. .. .. $1,200 per annum.
Lessor pays taxes, heat, cleaning and lighting; snow cleaning and street sprinkling.
Lessee pays water.

SESSIONAL PAPER No. 19

No. 257.—Weymouth, N.S. .. .. Building owned by lessor, west side of Main road and south side of Bridge.
Occupied by.. .. .. Post office.
Lessor.. .. .. Thos. C. Rice.
Term expires.. .. .. June 1, 1915.
Rent.. .. .. $200 per annum, of which $100 is paid by Department and $100 by Postmaster.
Lessor pays taxes, heat, light and cleaning.

No. 258.—Wilkie, Sask. .. .. Site for Immigration Hall.
Lessor.. .. .. Canadian Pacific Railway.
Term expires.. .. .. No lease filed with Department, but rent has been paid yearly in advance to 27th January, 1915.
Rent.. .. .. $1 per annum.

No. 259.—Windsor, N.S. .. .. Rooms 1 and 2 on second floor Bank of Nova Scotia building, north side of Water street, with use of stairway or passage from Water street and use of closets and lavatories.
Occupied by.. .. .. Immigration.
Lessor.. .. .. Bank of Nova Scotia.
Term expires.. .. .. June 30, 1915.
Rent.. .. .. $225 per annum.
Lessors pay taxes and heat.

No. 260.—Windsor, Ont. .. .. Part of lessor's building southeast corner of Ouelette avenue and London street.
Occupied by.. .. .. District Engineer, Public Works Department.
Lessor.. .. .. Heintzman Co.
Term expires.. .. .. October 2, 1919, with option of vacating on giving three months' notice prior to end of third or fourth years of lease which commences October 2, 1914.
Rent.. .. .. $1,200 per annum.
Lessors pay taxes, water and heating.

No. 261.—Winnipeg, Man. .. .. Three rooms on fifth floor of Ashdown building, Nos. 501, 504 and 508.
Occupied by.. .. .. Engineers of Public Works Department.
Lessor.. .. .. J. H. Ashdown Hardware Co., Ltd.
Term expires.. .. .. Month to month from end of each month.
Rent.. .. .. $62 per month.
Lessors pay heating.
Lessee pays special taxes.

No. 262.—Winnipeg, Man. .. .. Extra room in Bawlf building.
Occupied by.. .. .. Indian Affairs.
Lessor.. .. .. N. Bawlf.
Term expires.. .. .. Monthly at end of each month.
Rent.. .. .. $35 per month.

No. 263.—Winnipeg, Man. .. .. Offices on third floor and small storeroom on second floor, Chamber of Commerce building.
Occupied by.. .. .. Hydrographic Survey.
Lessor.. .. .. N. Bawlf.
Term expires.. .. .. December 1, 1918, with privilege to lessee to terminate lease at end of third year (December 1, 1913) or fourth year (December 1, 1917) on three months' notice in writing prior to end of third of fourth year.
Rent.. .. .. $225 per month.
Lessor pays all taxes, water, heating, light, insurance, cleaning and elevator service.

No. 264.—Winnipeg, Man. .. .. Two rooms in Chamber of Commerce building
Occupied by.. .. .. Weigts and Measures.
Lessor.. .. .. N. Bawlf.
Term expires.. .. .. At any time on thirty days' notice.
Rent.. .. .. $105 per month.

No. 265.—*Winnipeg, Man.*.. Seven rooms Nos. 400, 402, 404, 240, 210, 208 and 214 in old Grain Exchange building.
Occupied by.. Indian Affairs.
Lessor.. N. Bawlf.
Term expires.. On one month's notice from first of month in any month.
Rent.. $90 per month.
Lessor pays heat and sweeping.

No. 266.—*Winnipeg, Man.*.. Office No. 406 at lessor's building, corner Portage avenue and Edmonton street.
Occupied by .... Archives.
Lessor.. Wm. James Boyd.
Term expires.. March 31, 1916.
Rent.. $47.50 per month.
Lessor pays all taxes, water, heat, janitor and cleaning.
Lessee pays lighting.

No. 267.—*Winnipeg, Man.*.. Office (15 by 16 feet, equals 240 square feet) in Boyd building.
Occupied by.. Inspector of Fsheries.
Lessor.. W. J. Boyd.
Term expires.. Month to month at end of each month.
Rent.. $27 per month.

No. 268.—*Winnipeg, Man.*.. Second floor of Boyd building, corner of Edmonton and Portage avenue. Floor area, 1,467 square feet.
Occupied by.. Railway Commission.
Lessor.. Wm. J. Boyd.
Term expires.. Date of lease, June 1, 1914, one year from date of occupation.
Rent.. $1,830 per annum.
Lessor pays taxes, water, heating and power.
Lessee pays for lighting.

No. 269.—*Winnipeg, Man.*.. Room in lessor's Dominion Express Co. building.
Occupied by.. Post Office Station "A."
Lessor.. Canadian Pacific Railway.
Term expires.. July 11, 1916, but may be ended any time by the lessor on one month's notice in writing to lessee.
Rent.. $2,992.66 per annum.
Lessor pays heating and lighting.
Lessee pays taxes.

No. 270.—*Re Winnipeg Armoury Building, ground rented at Tyndall, Man.*.. Adjoining Carter Hall, Aldenger's Co.'s shops for storing material for Winnipeg Drill Hall.
Lessor.. Carter Hayy Alderger Co., Ltd.,
Term expires.. During such time as ground is required for above-mentioned purpose.
Rent.. $1 for period.

No. 271.—*Winnipeg, Man.*.. That messuage and tenement, southwest corner Portage avenue and Aubrey street, being two stores west of corner store in said building.
Occupied by.. Post Office, Station "D."
Lessor.. C. W. Cooper.
Term expires.. March 31, 1915.
Rent.. $150 per month.
Lessee pays taxes, water, heat, light.

No. 272.—*Winnipeg, Man.*.. All that messuage and tenement known as 103 Osborne street, "Adelaid Block."
Occupied by.. Post Office, Station "C."
Lessor.. Sir R. P. Roblin.
Term expires.. February 1, 1915.
Rent.. $1,500 per annum.
Lesser pays heating.

No. 273.—*Winnipeg, Man*.. .. .. Room 28 by 75 feet in the basement of Union Station.
Occupied by.. .. .. Postal purposes.
Lessor.. .. .. Winnipeg Joint Terminals.
Term expires.. .. .. September 1, 1917, with option of renewal of a further term of five years on same conditions.
Rent.. .. .. $2,416 per annum.
Lessors pay taxes, heating and lighting.

Examining warehouse, Vancouver, B.C.

PART IV

CHIEF ENGINEER'S REPORT

ON

HARBOUR AND RIVER WORKS

INCLUSIVE OF

GRAVING DOCKS AND DREDGING OPERATIONS; ALSO ROADS, BRIDGES AND SURVEYS THROUGHOUT THE DOMINION

REPORT OF THE CHIEF ENGINEER

Department of Public Works of Canada,
Chief Engineer's Office,
Ottawa, September 28, 1914.

R. C. Desrochers, Esq.,
Secretary,
Department of Public Works.

Sir,—I have the honour to submit the annual report on the various works under my charge during the fiscal year ended March 31, 1914.

These works comprise the construction and repair of wharves, piers, breakwaters, dams, weirs, bank and beach protection works; the improvement of harbours and rivers by dredging; the construction, maintenance, and operation of Government dredging plant; the construction and maintenance of graving docks; the construction, maintenance and working of slides and booms; the construction and maintenance of interprovincial bridges and approaches thereto, and of bridges on highways of Federal importance in the Northwest Territories, and the maintenance of military roads; also hydrographic and ordinary surveys and examinations, inclusive of precision levelling and geodetic measurements which are required for the preparation of plans, reports, and estimates; the testing of cements, etc.

I have the honour to be, sir,
Your obedient servant,
EUG. D. LAFLEUR,
Chief Engineer.

PROVINCE OF NOVA SCOTIA.

AMAGUADEE'S POND.

Amaguadees's pond (Castle bay), Cape Breton county, is on the northern side of East bay, the eastern arm of the Great Bras d'Or lake.

The works consists of a block and span wharf with creosoted timber substructure, 192 feet long and 20 feet wide, extending to 14 feet at low lake level, with a warehouse thereon, 10 by 16 feet, for the storing of goods shipped and landed by the ss. *Blue Hill*, which, during the season, calls here fortnightly and makes connections with the Intercolonial railway at Grand Narrows.

The department also constructed a bridge 100 feet long, including approach, and 20 feet wide across the outlet of the pond, and a road to connect the wharf with the public road, about half a mile in length

During the year 1913-14, the sum of $300 was expended by day labour in repairing and improving the road leading from the wharf to the public road.

AMHERST.

Amherst harbour is situated at the head of Chignecto bay, near the mouth of the LaPlance river, about 2½ miles from Amherst town. The town of Amherst, Cumberland county, is probably the most important, prosperous, and thriving industrial town in the province of Nova Scotia. It is a manufacturing centre of considerable magnitude, and efficient water transportation would consequently much augment its future advancement. Its population exceeds 12,000.

In the year 1904, a pile wharf was constructed, which consisted of a stem running from the dyke to the edge of the channel, 249 feet in length, with a width of 36 feet, and a wharf proper, which began at the outer end of this stem and ran seaward a distance of 300 feet along the inner edge of the channel. This wharf proper was 50 feet wide, and had a common height of 44 feet at its outer face, being 28 feet high on its inner face.

In the fiscal year 1907-8, another wharf was constructed, situated about 350 feet farther up the stream than the old work. This second pier is 360 feet in length, 64 feet wide, and has a height at its outer face of 28 feet. It is constructed of pile trestle bents, 8 feet apart, whilst the piles in these bents are distant from each other 7½ feet measured between centres. The front of this work and the end are close-piled.

During the present fiscal year, the sum of $4,000 was voted for the purpose of removing the old pier, and the sum of $10,000 was likewise voted for the purpose of extending pier No. 2 a further distance of 250 feet up stream.

During the present fiscal year, a contract for the extension was let to the Maple Leaf Lumber Company, Limited, of Amherst, amounting to $16,444. As it was very late in the season when this contract was let, the work will be proceeded with during the first part of the fiscal year 1914-15.

During the present fiscal year, the sum of $2,599.95 was expended in tearing down and removing pier No. 1. The work was of a very protracted nature, but was very satisfactorily performed. Work was commenced June 9, 1913, and completed on January 31, 1914. Spring tides rises 40 feet; neap, 33 feet.

Dredging.

The entrance to this harbour is contracted, and it was deemed necessary to cut off a corner of the point at the said entrance; this section was estimated to contain in all 12,000 cubic yards, place measurement. A contract was entered into with Mr. E. R. Reid, of St. John, for the removal of this work in the fiscal year 1911-12. In that year, however, conditions were such that it was impossible to proceed with the work. During the fiscal year 1912-13, 8,652 cubic yards, scow measurement, were removed. This was equivalent to 7,460 cubic yards. During the past fiscal year, 4,000 cubic yards were removed, and an extra 1,970 cubic yards were removed from the berths at the wharf. The work of removing the spoil at the berths was commenced on April 7, 1913, and finished April 19, 1913. The other work, that of completion of Mr. Reid's contract, amounting to the removal of 4,000 cubic yards of spoil, was begun on May 28, 1913, and completed July 30, 1913. The length of tow averaged about 1¼ mile. The material consisted of a mixture of clay and mud, and whilst the top 2 or 3 feet were easy of removal, the balance was of such a consistency that it resisted the attacks of the bucket, so that in many instances it had to be loosed by means of dynamite. Further operations in connection with this port are, I understand, to be taken up by the department itself, with their own plant. Spring tides rise here 40 feet; neap, 33 feet.

ANDERSON'S COVE.

Anderson's Cove, Annapolis county, is a very slight indentation in the coast line, on the south side of the Bay of Fundy, 16 miles east of Digby Gut, 2 miles east of Litchfield, and 5 miles west of Parker's cove. The settlement, which is called Hillsburn, comprises, within a radius of a mile, about 150 people, dependent almost exclusively on the fisheries for a living.

In order to afford some measure of protection and shelter for the fishing boats, which were often broken or destroyed for lack of shelter, the department, 1905-6, began the construction of a breakwater, which was extended in 1906-7, in 1908-9, 1909-10, 1911-12, and again in 1912-13.

In 1912-13, the sum of $2,999.59 was expended in completing the extension, 42 feet long, built in 1911-12, and in the construction of a further extension, 60 feet long, 26 feet wide, and from 20 to 25 feet high. (Full particulars of the expenditure and extensions, etc., will be found in the departmental reports for 1911-12.)

In 1913-14, the sum of $2,000 was expended in building 264 running feet of break on the seaward side of the breakwater, and sheathing the same distance. A hole underneath the middle of the length of the work, which was made by a severe storm in January, 1913, was filled with timber, brush and stone.

The whole breakwater is now 414 feet long, 26 feet wide, and from 7 to 25 feet high, substantially built of native timber cribwork, full fendered, and ballasted. Spring tides rise about 28 feet.

ANNAPOLIS ROYAL.

Annapolis Royal, Annapolis county, is the oldest town in the province of Nova Scotia, having been founded in 1605. It is beautifully situated at the head of Annapolis basin, and on the south side of the Annapolis river. It has a population of about 2,000, and is in the centre of one of the most fertile districts of Nova Scotia.

In 1905-6, the department expended $9,346.22 in building a landing pier on the site of a very ancient one. (For particulars see annual report, 1909-10.)

In 1913-14, the sum of $241.43 was expended in general and miscellaneous repairs to the upper portion of the pier, including flooring and guard timbers, and the replacing of four fenders that had been broken by vessels.

ICE PIERS.

In 1907-8, the department began the construction of a line of ice piers across the river, about a quarter of a mile above the town wharf, with the object of preventing ice from drifting down and endangering shipping. The expenditure in that year being $12,942.59, for the purchase of creosoted timber. On the 18th of May, 1909, a contract for the construction of the first three piers on the Annapolis side of the river was signed by the Nova Scotia Construction Company, of Sydney, N.S., for the sum of $46,736. The contract was completed in August, 1910.

In March, 1911, a contract was awarded to E. R. Reid for the sum of $37,300, for the construction of piers 4 and 5, which were completed on the 17th of August, 1912.

On the 11th of October, 1913, a contract was entered into with Messrs. Archibald and Reid, for the construction of piers Nos. 6, 7, 8, 9, and 10, to complete the series. The amount of the contract was $34,700. Operations were begun on the 29th of September, 1913, and the last of the concrete was completed on the 7th of January last. Before the end of that month, the riprap was placed around the bases of the piers for their protection against ice and scour, and the moulds were removed.

Those piers are all of the same type of construction. In height they are from 35 to 75 feet, the upper 27 feet being in every case of concrete, or from 5 feet above low

ater to 5 feet above high water. (Spring tides rise 27 feet.) The lower portion of ers Nos. 1 to 5, inclusive, is constructed of creosoted square timber, filled with stone allast. Piers Nos. 6 to 10, inclusive, are of concrete from bottom to top. The base of each pier is protected all around by a talus of riprap. The corners of each pier are protected by birch sheathing and boiler plate. All the piers, except No. 6, are rectangular in section, from 8 to 13 feet wide on top, and 27 feet long. Pier No. 6 is hexagonal in section at base, moulding to the circular form for the upper 20 feet. Owing to the great range of tide and alternating velocity of nearly 9 feet per second, the work was carried on under considerable difficulty.

ANTIGONISH LANDING.

Antigonish Landing is at the head of Antigonish harbour about one and one-half miles, by road, from the town of Antigonish.

Prior to Confederation, a small wharf was constructed at what is known as the "Landing." An approach 290 feet in length, with a small culvert, was built, and some improvements were made by dredging.

During the fiscal year 1913-14, the sum of $992.95 was expended in constructing a wharf at the old site, and in reconstructing the road and culvert. The wharf is 40 feet in width and 36 feet in length, including 28 feet of cribwork and an 8-foot pile extension. Depth at extreme low water at the outer end is 3 feet. Spring tides rise 4 feet.

Total expenditure to March 31, 1914, $992.95.

ARICHAT.

Arichat, the shire-town of Richmond county, is situated on the northern shore of Arichat harbour, on the southern side of Madame island.

The harbour, which is spacious, is well sheltered by outlying islands, and has two entrances, of which the western, although only about 600 feet in width, is the easiest to make; the southern entrance is about 1,800 feet wide, but it lies between shoals.

On July 13, 1910, a contract was entered into for the construction of a wharf and warehouse thereon, for the sum of $16,176, and the work of construction was commenced on September 23, 1910, and was completed on September 8, 1911.

The work consists of a stone approach, 131 feet long and 30 feet wide; of a block and span wharf, 144 feet long and 30 feet wide with an "L," also consisting of block and span work, 90 feet long and 50 feet wide, and of a warehouse 80 feet long and 25 feet wide, placed on the "L." The channel face of the wharf has a length of 120 feet, with a depth of 19 feet at low water, and the blocks, which consist of round timber cribwork, have creosoted timber substructure.

During 1912-13, the sum of $589.59 was expended in procuring all the necessary materials for a stone and concrete retaining wall in front of the Government property, and in the construction of 40 lineal feet of it, and during 1913-14, the sum of $293.49 was expended by day labour in the construction of a further length of 40 lineal feet of work.

ARISAIG.

Arisaig, Antigonish county, is on the southeastern shore of Northumberland strait, about 15 miles southwest from Cape George.

The works at this place consist of a pier on the northern and a breakwater on the southern side of a small cove. The pier, commenced prior to Confederation, and extended and improved by the department, is 524 feet long and is made up of an approach of brush and stone 117 feet long, an embankment within stone retaining walls, 155 feet long, protected on both sides by a stone talus, and a cribwork extension 252 feet long, from 40 to 42 feet wide, strengthened on the seaward face by a quarried stone talus, sloping 3 to 1 from high-water level.

In 1910-11-12, the sum of $5,176.64 was expended in repairing the approach and about 80 feet of the seaward face of the wharf, also in reballasting and general repairs to portions of the wharf, and in procuring the creosoted timber and part of the ballast for a proposed extension of 41 feet by 40 feet, to 8 feet of water at L.W.S., to have creosoted substructure and to be full ballasted and full sheathed with creosoted and hardwood timber.

In 1912-13, the sum of $1,565.74 was expended in cutting down, to low water, and rebuilding with creosoted substructure, 80 feet of the outer face of the pier, 20 feet in width and 10 feet in average depth.

During 1913-14, the sum of $1,105.36 was expended in repairing damaged portions of the wharf and in strengthening the structure to render it fit to take the proper extension; the sum of $785.86 in procuring 300 cubic yards of large field stone ballast, and the sum of $343.68 for the round and square native timber needed for the extension.

ARNOLD'S COVE.

Arnold's Cove, Halifax County, is situated on the eastern side of Jeddore harbour, 4 miles below Oyster Pond and 45 miles east of Halifax. It is used by the fishermen as a place of shelter in stormy weather.

Under contract with the Nova Scotia Dredging Company, formerly Alfred Hefleur, dredging was done to a depth of 9 feet to provide safe anchorage for fishing boats.

A total of 44,605 cubic yards, scow measurement, was removed at a cost of 29 cents per yard, of sand and mud, and the work was done between June, 1913, and January, 1914.

Total cost of completed work was $12,935.45.

AVONPORT.

Avonport, Kings county, is a small farming village with a population of about 250, situated on the left or south side of the river Avon, near its mouth, and on the D. A. Ry., 12 miles northwest from Windsor, the county town of Hants. Some two or three millions of bricks are annually made here and shipped. A small wharf of cribwork was built here before Confederation, 300 feet long, 22 to 25 feet wide on top, and 17 feet high at the outer end, which is dry at L.W.O.S.T. Spring tides rise about 45 feet.

Since the department took this work over, about 1880, it has had numerous small expenditures in repairs and renewals, of which particulars will be found in the departmental reports for 1908-10.

In 1912-13, the sum of $2,000 was expended in building an extension to the wharf. The new block being 36 feet long, on the upper side, 42 feet on the lower side, about 40 feet wide, and from 17 to 19 feet high. Miscellaneous repairs were also made to the older portion of the work, including 54 feet in length of close sheathing.

In 1913-14, the sum of $300 was expended in emergent repairs to the wharf, consisting of the following items: 25 new fenders, several stringers and upper logs were placed, 100 feet in length on the north side were re-ballasted, and a small quantity of new flooring was laid.

AVON RIVER.

Avon river, Hants county, is an important river flowing into the Basin of Minas. A little below the bridge spanning the river at Windsor, the county town, in the fiscal year 1912-13, the department expended the sum of $2,028.94 to protect the western bank of the river. The work done consists of a brush protection work 1,500 feet long, built in sections 50 to 100 feet in length by 25 feet in width and 20 feet deep. Opposite the Government wharf, an additional block was placed, measuring 100 feet in length, 50 in width and 3 feet in depth. The work appears to be fulfilling the purpose for which it was intended. The brush was put down in sections 2 feet deep; this, after two or three

tides, was covered with mud to a depth of 2 feet, when another layer of brush was added, and so on until a depth of 20 feet was filled in.

In the fiscal year 1913-14 the sum of $2,973 was expended in further building of brush protection work 1,600 feet long and from 50 to 200 feet wide. This brush was laid in layers of 25 feet in width and 3 feet in height at low tide; after this was covered with mud deposited by the tide, other layers of brush followed until a height of from 10 to 20 feet was reached.

Work was begun in August and completed October 14, 1913.

BADDECK.

Baddeck, the shire-town of Victoria county, is on the northern shore of the Little Bras d'Or lake, near the entrance of St. Patrick's channel.

During 1907-8, a wharf 284 feet in length and extending to 18 feet at low lake level, was constructed by the department. It consists of a road approach 64 feet in length and 30 feet in width; of cribwork with creosoted timber substructure, 50 feet long and 48 feet wide; of a creosoted timber pile extension, 170 feet long and 40 feet wide; with two boat landing stages, respectively 32 and 64 feet in length and 8 feet in width; one on either side of the inner end of the wharf, and built on creosoted timber pile foundation.

The top of the wharf is 5 feet above the low level of the lake, which rises about 15 inches.

During 1908-9-10, the wharf property was fenced in, drained, raised, and levelled; the old warehouse was repaired and fitted up for office, waiting room, and baggage room; a new freight warehouse, 48 by 24 feet wide, was constructed on the inner end of the wharf, and a cribwork retaining wall was partly built on the harbour front of the property, and during the year 1912-13, the sum of $399.97 was expended by day labour in the completion of the cribwork, wharfing and retaining wall, and in painting the fencing around the property.

During the year ended March 31, 1914, the sum of $59.18 was expended in temporary repairs to the covering of the wharf.

Dredging.

For the purpose of removing ballast heaps, remains of old cribwork blocks, scattered about the harbour, and which interfered with the free navigation, principally of motor-boats, the departmental dredge *Cape Breton* was ordered to Baddeck, and between the 1st and 10th of June, 1912, she effected the necessary improvement by removing some 4,900 cubic yards scow measure of stone ballast and old logs.

Under an arrangement made with the Atlantic Dredging Company, Ltd., on November 14, 1913, the clam-shell dredge *Pepperell* commenced operations at Baddeck for the removal of a shovel bank off the eastern side of McDonald's wharf, and for extending the cut inwards at the eastern side of the public wharf and worked for two days, completing the removal of the shovel bank off McDonald's wharf, but owing to the presence of buried timber logs and remains of old piling in the bottom to be dredged off the public wharf, the clam-shell dredge was found unsuitable for the work, and operations were abandoned. During the period of operations, a total amount of 390 cubic yards, in place, of sand, clay and stone were removed, which, at the rate of 50 cents per cubic yard, represents an expenditure of $195.

The material removed measured 490 cubic yards in the scow, so that the expansion was about 25 per cent.

BAILEY'S BROOK.

Bailey's brook, Pictou county, is a stream emptying into Northumberland strait, 10 miles eastward of the entrance of Merigomish harbour, and 6 miles westward of Arisaig.

In 1902-3, channel protection work was undertaken, consisting of a breakwater on the eastern side, 240 feet long and 20 feet wide, extending to low water, and a shear dam on the western side, 120 feet long and 12 feet wide, founded at low water. The above was completed in 1904-5.

In 1904-5-6, the sum of $3,982.17 was expended in constructing an extension of the shear dam 164 feet in length and 17 feet in width, with an "L" 14 feet in length at outer end.

In 1908-9, the sum of $4,143.88 was expended in constructing an extension of the eastern protection work 130 feet long and 20 feet wide; in building 90 feet of pile, brush and stone work on the crest of the beach, and 95 feet of brush and stone work in extension inward of the protection work.

In 1910-11, the sum of $802.59 was expended in close-piling the seaward face of the pile, brush, and stone work.

During the fiscal year 1913-14, the sum of $200.85 was spent in hand dredging and in securing and re-ballasting the damaged eastern pier.

BAKER'S POINT.

Baker's Pond (East Jeddore), Halifax county, is a settlement of about 600 people, scattered along the eastern side of Jeddore harbour, about 30 miles east of Halifax, and 10 miles west of Ship Harbour. The inhabitants are engaged in fishing; the fleet comprising ten schooners and a number of small boats. The harbour is an excellent one, with good shelter and easy approach, the channel being from 20 to 40 feet deep, and from 800 to 1,000 feet wide.

In the fiscal year ending June 30, 1904, the department expended the sum of $1,403.88 in the construction of a pile wharf 100 feet long, 25 feet wide, with an "L" at the outer end giving a face length of 40 feet. The height of the work along the outer face is 20 feet, giving a depth of water at L.W.O.S.T. of about 10 feet. In the year 1904-5, the sum of $928.07 was expended in repairs to the work which had been seriously damaged by exceptional ice. In the year 1907-8, the sum of $827.70 was expended in constructing a substantial block of cribwork, 20 feet wide, 40 feet long, and from 13 to 19 feet high, under the north corner of the wharf, to prevent further damage by ice. In 1908-9, a second block of cribwork was built for protection of the wharf, 22 feet long, 20 feet wide and 13 to 15 feet high. A small freight shed, 15 by 22 feet was also constructed for the use of shippers. During the fiscal year 1910-11, the sum of $47.05 was expended in making repairs to fenders, piling and guard timbers of the wharf.

During the fiscal year 1913-14, the sum of $101.20 was expended in making miscellaneous repairs to the wharf, including replanking and new fenders.

Work done during December and January.

Dredging.

Under contract with the Nova Scotia Dredging Company, dredging was done between 1st and 31st May, 1913, and on the 13th and 14th January, 1914, to a depth of 10 feet to provide safe vessel berths at the wharf.

Some 2,300 cubic yards of mud and shale were removed at a cost of 50 cents a cubic yard.

Total expenditure for the fiscal year was $1,150.25.

BARRINGTON PASSAGE.

Barrington, Shelburne county, is 45 miles southeast of Yarmouth, 25 miles southwest of Shelburne, and has a population of about 700. Fishing and farming are the chief industries. Coastal steamers make this an important port of call, whilst it is the mainland terminus of the steam ferry service to Cape Sable island.

The private wharf at this place having no material depth of water at L.W.O.S.T., this department, in the year 1888-9, constructed a wharf, which extends over mud flats, bare at low water, to Sherose channel. It is 1,051 feet long in all, 20 feet wide on top, with the exception of the head which is 70 feet wide and 30 feet long, and has 12 feet of water at its outer end at L.W.O.S.T. The shoreward end, 140 feet in length, is built of round log, stone-filled cribwork, all the remaining portion being pile trestle, bents 15 feet distant from centres. The outer end has a freight shed upon it, 35 feet long and 20 feet wide. During the past fiscal year, the sum of $800 was expended. Work was commenced about September 15 and continued until about November 21, replacing about 1,500 feet of 3-inch covering, and in the centre of the wharf a walk was laid of 2-inch plank, 1,051 feet long, replaced 200 feet in length of guard rails and exterior stringers, and about 20 fenders, placed 10 new fenders, closed up the drop on the side of the wharf, thus enabling a vessel to discharge coal at the extreme end of this side. The whole work has been very satisfactorily performed. Spring tides rise 9 feet; neap, 5½ feet.

BATTERY POINT.

Battery Point, Annapolis county, is a fishing settlement of about 150 people, situated on the east side of Digby Gut, about 4 miles northeast from the town of Digby, and 16 miles southwest from the town of Annapolis.

In 1904-5, the department began the construction of a breakwater for the protection of the fishing fleet, comprising some forty or fifty boats. The work was extended in 1905-6, 1906-7, and in 1910-11, and the work is now 190 feet long, from 8 to 29 feet high, and 26 to 30 feet wide, substantially built of native timber cribwork, filled with ballast, and with the lower portion protected by 4-inch creosoted sheathing, as a protection against the limnoria.

In 1911-12, the department, under an expenditure of $2,709.87, began the construction of a second breakwater, a couple of hundred feet to the south of the existing work, for the purpose of affording shelter from southerly weather.

In 1912-13, the sum of $2,598.89 was expended in extending the south breakwater by an additional block 70 feet long, 30 feet wide and from 22 to 29 feet high.

In 1913-14, the sum of $625.98 was expended in completing this 70-foot extension. Spring tides rise 27 feet; neap, 23 feet.

BAXTER'S HARBOUR.

Baxter's Harbour, Kings county, is a small harbour on the south side of Minas channel, Bay of Fundy, about midway between Scott's Bay and Hall's Harbour, about 6 miles from either. The settlement has a population of about 200 people engaged in fishing and farming.

The harbour is merely a slight indentation on the coast line, with a small wharf or breakwater on one side and a reef of rocks on the other, leaving an opening about 180 feet in width between them, into which small schooners can enter at about two hours ebb and flow.

The little breakwater, which was built many years ago by the inhabitants, aided by the Provincial Government, having become a complete wreck, the department, in 1905-6, expended the sum of $2,258.69 in building a substantial breakwater of cribwork on the site of the ancient structure. The work, which was not completed at the end of the fiscal year, is 100 feet long, 26 feet wide, and from 5 at the inner end, to 20 feet at the outer end, well fendered and filled with ballast.

In 1906-7, the sum of $745.51 was expended in completing the work.

During the year 1913-14, the sum of $2,998.22 was expended in building an extension to the breakwater. The new block being 50 feet long, from 23 to 25½ feet high, and from 25 to 28 feet wide, substantially built of standard cribwork. Some minor repairs were also made to the shore end of the breakwater.

BAY ST. LAWRENCE.

Bay St. Lawrence, Victoria county, is on the northern extremity of the island of Cape Breton.

At the head of the bay, and separated from it by a beach of sand and gravel, there is a small lake or pond, three-quarters of a mile in length and one-half mile in width, with a considerable depth of water.

During 1908-9, in order to render the pond accessible to fishing boats, for a harbour, a contract was entered into for the cutting of a channel through the beach of 2 feet below low water and 50 feet wide at the bottom, and the construction of a channel protection pier on either side of the seaward entrance to the channel; each pier is 290 feet in length and extending to 8 feet at low water, and consists of cribwork with creosoted timber substructure; of the work under contract, up to the end of that year, the piers were fully completed and about one-half of the proposed excavation of the channel was done.

As it was deemed advisable to complete the excavation by day labour, the contractors were relieved of their contract, and during 1913-14, the sum of $2,726.07 was expended by day labour in the construction of a timber-break on the eastern side of the eastern pier, 4 feet in height, to prevent the sand outside being swept into the channel inside, and in excavating the channel itself to a depth of 1½-foot below low water.

BAYFIELD.

Bayfield, Antigonish county, is on the southern shore of St. George's bay, 15 miles to the westward of the northern entrance to the Strait of Canso.

In 1892-3, a contract was entered into for the construction of a new wharf. The work under contract was completed, and the approach to it was improved by one of the departmental dredges in 1893-4.

The new wharf is 442 feet in length, including 33 feet of rubble masonry, 319 feet of block and span open-faced cribwork 25 feet wide, and 90 feet of close-faced cribwork in two blocks each 60 by 30 feet, placed at right angles. The substructure of the open-faced cribwork and of the outer close-faced cribwork is of creosoted North Carolina yellow pine, and the superstructure of native timber. The depth at extreme low water at the outer end is 11 feet. Spring tides rise 4 feet.

Since its completion, the block of both open and close-faced work have settled considerably, principally on the northern side.

In May and June, 1896, the sum of $348.37 was expended in levelling up 127 feet of the block and span work, and in slight repairs to the covering between the outer close-faced blocks.

In 1903-4, the sum of $3,074.57 was expended in raising and repairing the outer end and in renewing the stringers, and covering cap-timbers over the whole structure.

During the fiscal year 1913-14, the sum of $2,500.37 was expended in replacing worm-eaten timber in the substructure of the outer block and in some of the blocks of the approach, and in the renewal of the floor-stringers, covering, guard rails, upper face timbers and ties to within 112 feet of the inner end.

BEAR COVE.

Bear cove, Digby county, is a slight indentation in the coast of St. Mary's bay, Bay of Fundy, 23 miles north of Yarmouth and equidistant from Cape Cove on the south and Meteghan on the north, being about 5 miles from either. The population of the settlement, within a radius of a mile, comprises a couple of hundred people, chiefly dependent on fishing for a living.

In 1906-7, the department built a breakwater, by contract, at a cost of $5,748.92. The cribwork portion of the breakwater is 160 feet long, from 20 to 28 feet wide, and

from 8 to 16 feet high. The rock bank approach is 120 feet long, 20 feet wide and from 3 to 8 feet high.

In 1908-9, the sum of $599.69 was expended in replacing with cribwork 100 feet in length of the stone bank approach.

In 1910-11, the sum of $396.27 was expended in excavating some ledge rock alongside the work for the purpose of affording more space for boats standing.

In 1912-13, the sum of $500.03 was expended in the blasting and removal of a further quantity of ledge rock, comprising about 450 cubic yards from alongside the work, to improve the berth for fishing boats.

In 1913-14, the sum of $1,496.79 was expended in the purchase of material for the construction of an extension to the breakwater, under the 1914-15 appropriation. Spring tides rise 18 feet.

BEAR POINT.

Bear Point, Shelburne county, is situated about 6 miles west of Barrington, 4 miles north of Clarke's Harbour, and has a population of about 400. In the year 1900-1, the department constructed a new breakwater wharf. During the last fiscal year, the department expended $1,678.45 in constructing an extension. When first constructed, the wharf consisted of an approach 57 feet long, 24 feet wide on top, and 70 feet of solid open-faced stone-filled log cribwork, which was 19 feet wide and had a height at the outside end of 19 feet. The extension, constructed during the past year, is in the shape of an "L" 40 feet wide, 31 feet long. It is likewise constructed of solid cribwork, has a height of 20 feet at the outside end, and has been built in a most satisfactory manner. Work was commenced on September 1, and concluded November 22, 1913. Spring tides rise 10 feet; neap, 6½ feet.

BEAR RIVER.

Bear River, Digby county, with a population of about 1,500 people, is situated on the river of the same name, 3½ miles above its mouth, where it debouches into the Annapolis basin. At this place a large lumber business is carried on, the annual shipments aggregating about 8,000,000 feet b.m., being exported mostly to West Indian and South American ports. The village is half in Annapolis and half in Digby county, the river forming the county line. It is 15 miles south of Annapolis. At high water the river is navigable for vessels drawing about 16 feet of water, and at low tide there is only a fresh-water flow some 3 or 4 feet in depth at the village, and vessels loading lumber lie aground at the wharf.

In 1912-13, the department expended the sum of $4,667.07 in purchasing a wharf property, and in beginning the construction of a public wharf for the convenience of the local trade and shippers. Of this amount, $1,800 went to purchase the property, and $2,867.07 for the taking down and rebuilding of the old wharf on the property. The new wharf, which is not yet finished, is substantially built of native timber cribwork, 85 feet long on the river front, by a width of 20 feet and a height of from 22 to 24 feet.

In 1913-14, the sum of $2,837.92 was expended in completing the construction of the public wharf on the site of the ancient structure acquired by purchase from H. H. Marshall. The old wharf being partially removed to make room for the new, which is 80 feet long on the face, 110 feet deep, at right angles to the public road and from 20 to 24 feet high along the river face at which H.W.O.S.T. there is about 18 feet of water. Spring tides rise about 27 feet. The work is built of standard cribwork, with gravel on top of stone ballast.

BEAR TRAP.

Bear Trap is situated on the southeast coast of Lunenburg county about midway between the towns of Liverpool and Lunenburg, or a distance of 16 miles from either and half a mile northeast from the entrance of Broad Cove.

It is not a harbour, properly speaking, as it is fully open to the sea, but merely a small indentation in the coast line, not more than 600 feet deep. It is inhabited only during the fishing season by fishermen from Broad Cove. In 1885, the department expended the sum of $200 in digging a channel 175 feet long, 10 feet wide, and having a depth of 4 to 5 feet at H.W.O.S.T., from the head of the little cove to the pond on the other side of the road, to enable fishermen to enter the latter with their boats, and there find shelter from south and east gales. In 1894-5, the sum of $40 was expended in reopening the channel that had filled with sand and gravel washed in by the waves. In 1907-8, the department expended the sum of $837.34 in re-opening the boat channel, first made in 1885, and in building two small blocks of cribwork to protect its mouth. The blocks are respectively 50 and 72 feet long, each 12 feet wide and about 7 feet high at their outer ends.

In the year 1913-14, the sum of $399.97 was expended in hand dredging a channel 249 feet in length and 20 feet in width to a depth of ½ to 1½ feet below L.W.O.S.T. The material removed was rock and mud.

BEAVER HARBOUR.

Beaver Harbour, Halifax county, is situated about 60 miles east of Halifax; it is a lumbering, fishing and farming district, with a population of from 300 to 400.

In the fiscal year 1913-14, the sum of $2,137.69 was expended in the construction of an approach to the proposed public wharf, and in the purchase of timber in readiness for the construction of the main work during the next fiscal year. The approach is 70 feet in length by 20 feet in width, and has an average height of 6½ feet.

Work begun December, 1913, suspended March 28, 1914.

BEAVER RIVER.

Beaver River, Digby county, is a prosperous fishing and farming village of some 400 people, situated on the coast of St. Mary's bay, 13 miles north of Yarmouth, and on the county line between Yarmouth and Digby. The little stream which issues here, discharges through a gravel beach, which formerly, when the stream was low, obstructed its mouth and finally closed it altogether, so that the water had to find exit by soakage through the gravel.

In 1886-7, the department began operations to remedy this defect and improve the river mouth, the first work being the construction of a short breakwater, and a passage was cut through the gravel and sea-wall, the breakwater being built on the south side to catch the gravel and prevent the bank reforming.

In 1888-9, the sum of $1,500 was expended in extending the breakwater 100 feet, sheet piling its northern face and extending the short piece on the northern side of the mouth.

In 1891-2, $450 was expended on repairs to the main breakwater.

In 1900-1, a further extension of 30 feet was made to the breakwater at a cost of $1,080.04.

In 1901-2, the department expended $2,097.46 in repairs and improvements, consisting of extensions seaward of both breakwaters. The extension to the south breakwater being 50 feet, 25 feet wide and from 15 to 17 feet high; that to the north being 22 feet long, 18 feet wide, and 14 feet high; minor repairs were also made to the northern breakwater at the shore end.

In 1906-7, the sum of $99.49 was expended, and in 1908-9, the sum of $1,999.97 was expended, both these expenditures being for repairs and renewals.

In 1913-14, the sum of $1,999.45 was expended in rebuilding the shore end of the south breakwater and its extension shorewards by a block of standard cribwork 90 feet long, 12 feet wide, and from 6 to 12 feet high. Spring tides rise about 15 feet.

BLACK POINT.

Black Point, Richmond county, is on the southern or Atlantic shore of the island of Cape Breton, about 15 miles to the eastward of the entrance of St. Peter's canal.

On the 26th November, 1910, a contract was entered into with A. W. Gerrior and K. Sweet, of Antigonish, N.S., in the sum of $7,166, for the construction of a breakwater on the northern side of the point to protect the anchorage for fishing boats.

The work of construction was commenced on July 20, 1911, and was satisfactorily completed on November 11.

The breakwater is 378 feet in length and extends to 6 feet at low water. The inner end, for a distance of 150 feet, is 16 feet wide, the outer end is 24 feet wide, and the work consists of a round-timber cribwork structure with creosoted timber substructure, solidly ballasted and close-sheathed on the seaward face and outer end.

During 1912-13, the sum of $500 was expended for repairs to the outer end of the breakwater, consisting in refilling some of the bays out of which the ballast had been washed, and during 1913-14, the sum of $730.87 was expended by day labour in placing brush in the bottom of the empty bays of the work, and in filling them up with heavy stone, and in placing large stone along the seaward face of the work, to prevent scouring out the sandy bottom.

BLACK ROCK.

Black Rock Ferry, Colchester county, is a small settlement situated at the mouth of the Shubenacadie river, 10 miles from Truro. The place has a population of about seventy-five, chiefly engaged in fishing for a livelihood.

In the fiscal year 1913-14, the sum of $998.57 was expended in the construction of a cribwork wharf for use as a ferry landing; the work is 80 feet long and 20 feet wide, with a slip on the eastern side of the work. The work is fully ballasted and sheathed on all sides. It has an average height of 9 feet.

Work was begun in August and completed September, 1913.

BLANCHE.

Blanche, Shelburne county, is a small settlement situated at Green Point, on the western side of the entrance to Negro Harbour. It has a population of about 350, all of whom are dependent upon fishing for a livelihood. During the fiscal year 1912-13, this department began the construction of a breakwater in order to protect the landing on the beach, which was the only place they had in that vicinity for such purpose. In ordinary weather, the landing could be utilized but in heavy sea or wind it was dangerous to boats and the occupants, in either making a landing or leaving the shore in order to conduct fishing operations. During that year, the amount of $1,998.90 was expended. Most of the material required for the work was purchased, and 160 feet in length of the breakwater was constructed. During the past year, $752.77 was expended in completing the outside 140 feet in length. Work was commenced on July 21 and ceased August 27, 1913. The entire work is complete, and has been performed in a most satisfactory manner. It is built of continuous cribwork, 300 feet long, 8 feet wide on top, and 12 feet high at the outer end. It has a batter of 1 to 4 on the seaward face and 1 to 12 on the inner face. It is filled to the top with ballast, double fendered, and both sides are very strongly fastened. Spring tides rise 8 feet; neap, 5½ feet.

BLUE ROCK.

Blue Rock, Antigonish county, is on the southern shore of St. George's bay, about 2½ miles eastward from the entrance to Tracadie harbour, and 6 miles westward from the entrance to the Strait of Canso.

The breakwater is 316 feet long, 17 feet wide on top, with a sloping face on the seaward side of 1 to 1 from the top of the work to 1 foot below high water, and a stone slope 2 to 1 from 1 foot below high water for a distance of 175 feet, to within 20 feet of the outer end.

During 1913-14, the sum of $1,199.93 was expended in rebuilding the outer end of the breakwater, renewing some of the inner cribwork and replacing covering, sheathing and ballast that had been carried away.

BLUE ROCKS.

Blue Rocks, Lunenburg county, is a small fishing settlement, about 4 miles from Lunenburg town. It has a population of 300, wholly dependent upon the fishing industry for a living. The harbour, which is sheltered by a small rocky island, lying close to the shore, is much exposed to the sea at both the eastern and western entrances.

During the year 1909-10, the sum of $4,144 was expended in the construction of a small cribwork breakwater between the mainland and the island, at its eastern extremity, thereby closing the eastern entrance and forming a snug harbour. In the year 1911-12, the sum of $8,207.66 was expended in the construction of a breakwater to protect the western entrance to the harbour. The work is 220 feet long, 25 feet wide and from 10 to 18 feet high. The work was done by contract.

During the fiscal year 1913-14, the sum of $601.66 was expended in an extension shorewards of the breakwater. The addition is 62 feet in length, beginning at 25 feet and narrowing to 12 feet in width at the shore end; it averages 5 feet in height.

BLUFF HEAD.

Bluff Head, Yarmouth county, is a small fishing and farming settlement of a couple of hundred people, situated on the coast of the mouth of the Bay of Fundy, about 5 miles from Yarmouth and about midway between Chegoggin point on the south and Sandford on the north, or about 1½ miles from either.

In 1908-9, the sum of $2,005.17 was expended in constructing a small breakwater for the protection of the fishing fleet. The work is 130 feet long, 20 feet wide, and from 4 to 9 feet high, substantially built of round cribwork, filled with ballast and protected with a break, 4 feet high, on the seaward face. Spring tides rise about 18 feet.

In 1910-11, the sum of $2,215.96 was expended in constructing an extension to the breakwater, built in 1908-9. The new block is 100 feet long, 20 feet wide on top and from 10 to 12 feet high, built of substantial cribwork of the usual type, and provided with a break 4½ feet high on the seaward face.

Work was begun on the 1st of September and completed on the 22nd of November, 1911.

In 1913-14, the department expended the sum of $3,367.81 in extending the breakwater 60 feet seaward. The new work being 30 feet wide and 15 to 18 feet high, of substantially built round-log cribwork. A block of cribwork was also built on the seaward side of the shore end of the breakwater, to check erosion of the beach; this block is 80 feet long, from 10 to 20 feet wide, and from 5 to 8 feet high.

BOULARDARIE CENTRE.

Boulardarie Centre, Victoria county, is on the southern side of the Great Bras d'Or channel, about 8 miles to the westward of the entrance into the Atlantic ocean, and 10 miles to the eastward of its entrance into the Little Bras d'Or lake.

On April 25, 1901, a contract was entered into for the construction of a wharf which was completed on June 30, 1902.

The wharf is 164 feet long and 20 feet wide, with an "L" at the outer end, 20 feet by 20 feet, and consists of an approach of stone, clay, and gravel, 10 feet long; of a cribwork abutment, 30 feet long; of two cribwork blocks 20 feet; and of an outer block, 24 feet by 40 feet, with 20-foot openings between the blocks, spanned and covered over. The abutment and the blocks, constructed of round timber, are creosoted up to the level of high water, fully ballasted and fendered, and the two outer blocks are protected by close-sheathing.

The depth along the channel face of the wharf at low water, is 13 feet; spring tides rise 2 feet.

During 1902-3-4, a road, 2,100 feet in length, was constructed from the wharf to the main road, and during 1904-5, a post and wire fence was constructed on each side of the road, and during 1913-14, the sum of $74.50 was expended in temporary repairs to the covering of the wharf, by renewing some 2,000 feet b.m. of 3-inch plank.

BROAD COVE MARSH.

Broad Cove Marsh, Inverness county, is on the gulf of St. Lawrence, 12 miles south from Margaree harbour.

The wharf, on its completion in 1888, extended 400 feet to 12 feet 10 inches at extreme low water. It was badly damaged in 1894, and was subsequently carried away to within 207 feet of the inner end. In 1894-5-6, the inner 207 feet was repaired and strengthened, and in 1897-8, a small amount was expended in repairs.

When repairs were undertaken in 1904-5-6, only 100 feet of the work remained. During the years 1904-5-6, an extension 123 feet in length was constructed, and close-sheathed between the fenders on each side and at the outer end. In 1907-8, the sum of $409.60 was expended in renewing the floor-stringers and covering the cap-timbers on the inner 100 feet of the wharf.

During the fiscal year 1910-11, the sum of $274.85 was expended in replacing ballast, stringers, covering and cap-timbers at the outer end of the wharf, and during 1913-14, the sum of $199.56 was expended in general repairs to the wharf.

BROOKLYN.

Brooklyn, or Herring Cove, Queens county, as it was formerly called, is situated on the eastern side of Liverpool harbour. Owing to the existence of a sand bar, and the contracted shape of the harbour, this cove has been the only safe anchorage in the bay, when properly protected. The village is a fishing, farming and lumbering one, with a population of about 400. In the years between 1899 and 1902, the department constructed a new wharf upon the site of an old one, which had formerly been built by the Government of Nova Scotia. This structure consists of an approach or rock bank 77 feet in length and of continuous cribwork 160 feet long, 32 feet wide on top and 48 feet in length, of pile trestle bents, likewise 32 feet in width on top except the outside 32 feet which is 56 feet in width on top. It is 22 feet high at the outside end. During the fiscal year 1911-12, slightly over $700 was expended in repairing this work. During the past fiscal year, an amount of $499.20 was expended in completing the necessary repairs, which were commenced on August 11, and completed September 10, 1913. The work done, this year, consisted of renewing the entire top, stringers, guard-rails, and trestle caps for the outside 120 feet in length, and renewing about twenty fenders and fifteen bearing piles. Spring tides rise 7 feet; neap, 4½ feet.

In the year 1879, this department constructed a breakwater, which cost in the vicinity of $70,000. It was constructed of cribwork, but owing to the presence of

the *Teredo navalis*, the logs of the cribwork were eaten away, and the entire structure became demolished, so that the old work was a menace to navigation without being any longer of use as a protection. This harbour, or place of call, if proper protection were afforded, is the only shelter for the vast amount of navigation on the Atlantic coast of Nova Scotia between the ports of Halifax and Shelburne, and it is therefore not only of local but of national importance.

On September 9, 1911, a contract was let to the Nova Scotia Construction Company, Limited, for the construction of a concrete breakwater; this company assigned its contract to a firm known as Falconer & MacDonald, Halifax, N.S. The deed of assignment was executed by the Governor in Council on the 11th of November, 1911, and the new contract was executed on the 19th December, 1911. Besides this contract, the department let a contract to the Canada Cement Company, Limited, of Montreal, for the delivery of sufficient cement to construct this work, not, however, to exceed 20,00 barrels. This work was completed on March 31, 1914. Final estimates have been issued; that of the Cement Company amounting to $29,489.42, and of Falconer & MacDonald amounting to $112,149.40.

This work is parallel to the northern side of the old breakwater in Liverpool bay, and is about 1 mile distant by wagon road from Brooklyn station on the Halifax and Southwestern railway. The breakwater consists of a shore approach 30 feet wide, extending out 170 feet, and a massed concrete structure for the outward end 30 feet wide, said outward part being 480 feet in length. The approach is formed by two parallel concrete retaining walls with vertical faces, filled between with hand-packed rubble. The filling is covered with a load of concrete 2 feet thick, deposited upon it, and bonded with the fresh concrete of the side wall. The top is finished throughout, on the seaward side, to a height of 5 feet above H.W.O.S.T. From the end of the approach outward, the breakwater is concrete, deposited under water, and thickly studded with masses of stone. For about 130 feet the mass of concrete is founded on rock, from which the overlying material is excavated. Beyond, to the outward end, the foundation is enclosed with wooden sheet piling, and the concrete is on the natural bottom thus enclosed. The top of the breakwater is finished throughout 5 feet above H.W.O.S.T. as required for the approach. There is nearly 30 feet of water at its outside end. During the past year, the outer 260 feet in length was constructed; the work was commenced on April 9, was suspended, owing to disadvantageous weather conditions, on December 20, 1913, and resumed on March 24, 1914. It is now complete and gives every evidence of being constructed according to contract, specification and plans connected therewith. Between it and the remnants of the old breakwater, however, is a gully where the heavy undertow washing in brings a severe strain to bear upon the otuside portion of this work. In order to overcome this, it has been recommended that the outside of the work be riprapped for practically its entire length, in the course of which operations the gulley will naturally be filled up with stone.

BRÛLÉ.

Brûlé, Colchester county, is situated on Northumberland strait, about 20 miles in a straight line from the town of Pictou. It is an arm of Tatamagouche bay. The harbour is sheltered on the northeast by a long neck of land terminating in Cape John, and on the northwest by Brûlé point. Surrounding the harbour is a prosperous country, well populated. The village of Brûlé has a post office and telephone, and a population of 500. The nearest railway station is Denmark on the Intercolonial railway, distant 2 miles.

The old wharf, constructed between 1884 and 1888, has a total length of 366 feet and a width of 24 feet with a height of 14 feet at the outer end.

During the year ending March 31, 1911, the sum of $1,948.85 was expended in extending the wharf. During the year 1911-12, the sum of $303.90 was expended in completing the close-piling of the new portion of the work. During the fiscal year 1912-13, the sum of $2,000.44 was expended in taking down and rebuilding a portion of the old wharf. The piece so rebuilt is 160 feet long, 24 feet wide and has an average height of 10 feet.

In the fiscal year 1913-14, the sum of $2,032.73 was expended in rebuilding a length of 210 feet by a width of 24 feet and an average height of 5 feet. Fenders were placed on the portion of work done last year and the ballasting of the whole work was completed.

Work begun in August; completed December 8, 1914.

BURKE'S HEAD.

Burke's Head, Victoria county, is on the northern side of the North bay of Ingonish, on the northeastern coast of the island of Cape Breton.

On January 9, 1911, a contract was entered into for the construction of a breakwater for the sum of $35,490. The work of construction was commenced in June, 1911, and good progress was made until the early part of October, when the weather became stormy and the work was delayed.

On October 1, the substructure of the work was all in place and fully ballasted, excepting the "L". The substructure of the latter was built afterwards and was placed but before it could be fully ballasted it was driven ashore during a terrific gale, and was partly wrecked. The work of construction was continued until November 20, when it was suspended for the winter and at that time the structure, excepting the "L", was completed to the full height.

The work was resumed on May 12, 1912, and was completed and accepted on July 25, following.

The work consists of a cribwork structure, 390 feet in length, with a return or "L" 120 feet in length, along the channel face, which is in 15 feet at low water. For a distance of 150 feet from the inner end, the work is 20 feet wide, for a further distance of 120 feet, 24 feet wide, and for the remaining distance and for the "L" it is 30 feet wide on top. All the faces of the work are built of squared timber, laid open-faced, with ties of round timber, creosoted to half tide, solidly filled with ballast, and the seaward face, outer end or channel face and outer end of "L" are close-sheathed between the fenders. A heavy quarried stone talus sloping 3 to 1 has been laid along the seaward face of the work, and a road 300 feet long and 20 feet wide has been cut along the face of the bank, from the top of the bank to the inner end of the breakwater.

During 1913-14, the sum of $130.50 was expended in the removal by diver of a portion of the original substructure of the "L", which projected beyond the face of the work, and which was considered a danger to navigation.

CABBAGE CUT.

Cabbage Cut, Lunenburg county, is a channel between Middle island on the south, and Cabbage island on the north of the La Have island group, about 15½ miles in a southerly direction from the town of Bridgewater.

To shorten the run between the islands, and for the convenience of fishing boats, a channel was opened, by day labour, to a depth of 4 feet; 1,500 cubic yards of mud were removed at a total cost of $598.23.

CANSO.

Canso, Guysborough county, an important fishing centre on the southern shore of Nova Scotia at the entrance to Chedabucto bay; 32 miles from the town of Guysborough, and 30 miles from Mulgrave. Population, 1,750.

Dredging was undertaken with the object of widening the channel at its most dangerous point to make an easy and safe passage to Whitman's pier, which is used as a public wharf; also to provide room for vessels going north and south, which pass through this harbour to avoid going around the dangerous rocks and ledges which lie outside.

During the season 1913-14, the Government dredge *Cape Breton* worked from June 4 to June 16, first attempting to remove the outer end of shoal on the western side of the channel, and latterly to dredge a channel across the inner portion of the shoal. In each case the dredge encountered very little movable material overlying the solid rock, and the undertaking was consequently abandoned after having removed 2,950 cubic yards seow measurement. From June 16 to 24 the dredge was engaged in deepening to 8 feet at L.W.S. at the Whitman and the Maritime Fish Company's docks.

At the Whitman dock, the dredge worked over 11,200 superficial feet; average cut about 2·47 feet, and removed 1,000 cubic yards in situ; 1,200 cubic yards scow measurement; expansion factor, 20 per cent. At the Maritime Fish Company's dock, the area was 12,800 superficial feet; average cut, 1·57 feet; and removed 744 cubic yards in situ, 800 cubic yards scow measurement; expansion factor, 7·5 per cent.

CAPE ST. MARY.

Cape St. Mary, Digby county, is situated on the east coast, of the mouth of the Bay of Fundy near the entrance to St. Mary's bay. It is 19 miles north of Yarmouth, and 27 miles south of Weymouth. It has a population of about 150 people, engaged chiefly in fishing, and is one of the best fishing stations on the coast of St. Mary's bay, cod, haddock, and herring being caught in great abundance.

The works consist of a breakwater for the protection of the fishing fleet; begun in the year 1840, and built in sections, and has been maintained and added to from time to time until the year 1907, the work at that date being 470 feet long, from 25 to 34 feet wide and from 6 to 26 feet high.

In 1913-14, the sum of $699.63 was expended in renewing a quantity of sheathing on the seaward face of the breakwater, and in repairing some of the flooring.

CAPE NEGRO.

Cape Negro, Shelburne county, is a scattering settlement situated about 5 miles south of Port Clyde, with a population of about 300, ranging along 2 miles of territory. In order to afford accommodation, the department voted $1,500 for the purpose of constructing a wharf. During the past fiscal year, the sum of $1,489.49 was expended. Work was commenced on October 13, and closed on November 30, 1913. The wharf, when complete, will consist of a rock bank 94 feet long, 20 feet wide on top, three cribs each 20 feet long separated by two spans each 15 feet long, and five trestle bents separate 10 feet apart. The last 41 feet in length of this work will be 31 feet wide at the outside end, whilst the remaining 100 feet will be 16 feet wide. The rock bank is completed, also the first two cribs and span, leaving a span, a crib and 51 feet of pile trestle bent yet to be constructed. Spring tides rise 8 feet; neap, 5½ feet.

CARIBOU ISLAND.

Caribou Island, Pictou county, is on the strait of Northumberland, 5 miles to the westward of the entrance to Pictou harbour.

In 1890-91, a causeway of brush and stone, 1,300 feet long, between the mainland and the island, was commenced over flats, dry at low water, and in 1894-5, this causeway was raised to 1 foot above H.W.S., and had a talus of quarried stone, sloping 1 to 1 from H. W. S., placed on the seaward side.

Between 1904 and 1909, the work was damaged and repaired from time to time. In 1909, the work was in the following condition: The raising of the causeway and talus to a height of 3 feet above H.W.S. was nearly completed for 454 feet from the mainland; for a further 576 feet it was raised to an average of 1½ feet above H.W.S., and the piles were driven for a pile, brush and stone work, 555 feet in length three piles in each bent, bents 5 feet apart, to protect the middle third of the causeway.

In 1909-10, the sum of $1,206.86 was expended in completing the pile, brush and stone work, including the replacing of ninety-nine piles.

In 1910-11, the sum of $2,000 was expended in repairing the pile, brush and stone work and in raising the causeway 9 inches above H.W.S.

In 1911-12, the sum of $967.91 was expended in replacing some brush in pile, brush and stone work, and in repairs to roadway.

In 1912-13, the sum of $1,365.55 was expended in repairing pile work and in raising causeway for 750 feet.

During the fiscal year 1913-14, the sum of $880.74 was expended in strengthening the pile, brush and stone work.

CARR'S BROOK.

Carr's Brook, Colchester county, is a farming and lumbering district, situated 3 miles west of Central Economy and 28 miles east of Great Village. It has a population of 150.

In the fiscal year 1913-14, the sum of $9,300 was expended (under contract with Halle Bigelow) in the construction of a breakwater-wharf. The completed work for a distance of 330 feet is 20 feet wide, and for the next 80 feet has a width of 30 feet and an average depth of 10 feet. An approach was also built from the public highway to the breakwater wharf. The sum of $250 was expended by day labour in the construction of a brush and stone breakwater along the western side of the stream for a distance of 234 feet, and in repairs to the water course on the road leading to the breakwater.

CARTER'S POND.

Carter's pond, Guysboro county, is situated on the north side of Chedabucto bay about 12 miles east of the entrance to Guysborough harbour and 3 miles west of Sand Point at the entrance to the Strait of Canso.

The pond covers an area of about 1 mile by 150 yards and has a depth of from 8 to 16 feet at low water outside. It is separated from Chedabucto bay by a beach, the crest of which is about 7 feet above high water.

Spring tides rise 6 feet.

During the fiscal year 1913-14, the sum of $650 was expended in making a cutting 25 feet in width to low-water level through the beach, which afterwards scoured to a depth of about 3 feet at low water. This opening was, however, filled by a subsequent storm.

CENTREVILLE.

Centreville, Shelburne county, is situated on Cape Sable island about 2 miles southwest of North East point, and is a calling place for a ferry service between Barrington Passage and Cape Sable island. It is the only wharf where supplies for a large number of people in that vicinity can be landed to advantage. This calling place serves not only the interests of the people in the immediate vicinity, but of the Stony island section as well, so that in all, the interests of about 800 people are affected. For a number of years, this ferry stopped at a private wharf known as McGray's wharf, which was in such a state that its renewal or rebuilding became absolutely necessary. During the fiscal year 1912-13, the sum of $2,325.95 was expended in constructing a work 299 feet in length, the first 118 feet consisting of a

rock bank, and the next 181 feet of cribwork and pile trestle bents, the outside 8 feet in width for its entire length to be cribwork, the other 12 feet to rest on pile trestle bents, separate 10 feet apart, measured from centre to centre of pile heads. During the past fiscal year, 81 feet was constructed, the last 40 feet being 40 feet wide, the next 140 feet shoreward 20 feet wide and the rock bank 24 feet in width. The height of the work at the outside end is 22 feet. Work was commenced on August 26 and completed on October 30, 1913. Spring tides rise 9 feet; neap, 6 feet.

CHEBOGUE.

Chebogue, Yarmouth county, with a population of about 400, is one of the oldest settlements in the county of Yarmouth. It is situated on the west side of Chebogue river and harbour, about 5 miles south of Yarmouth. The wharf, which was the first wharf in Yarmouth county, and, excepting Arcadia at the extreme head, is the only landing place on the river, was built about one hundred years ago, by the Provincial Government. It was repaired and extended a length of 67 feet by the same Government, about the year 1883; receiving no repairs or renewals since the latter date, it fell into a state of dilapidation and disuse. In 1899-1900, the sum of $856.84 was expended in renewing the works, with a pile structure on the site of the old. The new work is 110 feet long, exclusive of the short earth and stone approach, from 24 to 33 feet wide, and 10½ feet high at the outer end. At low water, the mud flats are bare a couple of hundred feet beyond the wharf, while at high tide there is about 8 feet of water.

In 1913-14, the sum of $898.88 was expended in rebuilding, in dry rubble stone, the public wharf that was first built about 100 years ago. The wharf is 110 feet long, from 25 to 31 feet wide and 10½ feet high, at the outer end. The top of the wharf is covered with gravel, and both sides of the outer end are provided with a guard rail and fenders.

CHEBOGUE HARBOUR.

Chebogue harbour, Yarmouth county, is situated about 7 miles south of the town of Yarmouth. Near its mouth, and surrounded by Fox island, Veal island, Jacko island and Shortliffe point, a small but well protected anchorage or roadstead which affords shelter to a considerable number of small fishing vessels and other craft, engaged in fishing and general trade. The anchorage is partly protected on the south by Fox island, but its westerly portion, which is mostly dry at low water, and much used at or near high tide by boats plying between Chebogue point and other ports and by other craft, is guarded by a gravel bar or beach 800 feet long, about 20 feet wide from high water to high water, and 4 to 5 feet high above H.W.O.S.T.

To preserve the beach and the anchorage to the north of it, the department, in 1900-01, at a cost of $1,798 built cribwork 260 feet long, 8 feet wide and 8½ feet high. Spring tides rise 15 feet.

Between 1901 and 1911, five small expenditures were made in renewals and repairs.

In 1911-12, the sum of $31.83 was expended in repairs to the floor, which had been slightly damaged by ice the previous winter.

In 1913-14, the department spent the sum of $199.77 in effecting repairs and renewals to the top of the beach protection which was damaged by the ice and storms of the winter of 1912-13.

CHESTER.

Chester, Lunenburg county, is a village of about 1,000 people, engaged in farming and general trade, situated at the head of Mahone bay, 45 miles southwest of Halifax. It is a favourite tourist resort in the summer and is a place of some importance owing to its fine situation and beautiful scenery.

In the year 1908-9, the department expended the sum of $113.80 in re-opening the channel through the isthmus joining the mainland and Peninsular point, which had filled in since it was dug out in 1901. During the year 1911-12, the sum of $752.86 was expended in widening and deepening the channel.

During the year 1912-13, the sum of $2,300 was expended in taking down and rebuilding the western wall of the canal a length of 110 feet, average height 10 feet; in raising the road for a distance of 180 feet on the western and 110 feet on the eastern side from 3½ to 6 feet in height and 30 feet in width. A 35-foot span steel bridge was placed across the channel, and 800 yards of sand removed.

In the year 1913-14, the wall on the island side of the canal was completed, the total length of wall being 360 feet in length with an average height of 8 feet built of cut stone and hand laid. The channel was deepened from 1 to 1½ feet, and the public highway, for 200 feet on either side of the bridge, was raised from 1 to 2 feet, at an expenditure of $1,857.24.

CHETICAMP.

Cheticamp, Inverness county, also called Eastern Harbour, is on the west coast of Cape Breton Island, 18 miles north of Margaree. It is a secure harbour, being sheltered from the west and south by Cheticamp island and a connecting beach. The entrance is from the north through a dredged channel.

A wharf built on the eastern side of the harbour in 1890, consisted of an approach 125 feet in length and 30 feet in width, over a distance of 60 feet from its outer end, with side walls and centre filling of stone, and of an extension 80 feet in length in two blocks, a central block 20 by 20 feet, and an outer block or head 25 feet in width and 60 feet in length along the channel face, with opening of 17 feet 6 inches.

During the years 1898 to 1900, the wharf was reconstructed and extended by the addition of a creosoted pile-head, 70 feet in length and from 33 to 37 feet in width.

During the fiscal year ended March 31, 1912, the sum of $1,103.23 was expended in the removal of fender-piles, walings, braces and chocks in the pile-head, and the crib-work, where it had settled, was raised and, where required, new covering was placed, and during 1913-14, the sum of $174.75 was expended in repairs to the stone approach to the wharf.

Dredging.

The object of the work was the improvement by dredging of the channel from the entrance into the harbour, by widening and deepening it, so as to enable a larger class of vessels and steamers to enter and leave at all times of tide, principally in the interests of the gypsum trade.

Dredging operations to effect the desired improvement were commenced during 1909-10, and during that year the channel, for a distance of 2,400 feet, in a width of about 100 feet, was dredged to an average depth of about 13 feet below low water.

On August 6, 1912, a contract was entered into with Vivian T. Bartram, of Toronto, for the completion of the channel to a width of 100 feet and to a depth of 16 feet below low water. The work under contract involved the removal of 22,800 cubic yards, scow measure, of sand, at the rate of 37½ cents per cubic yard; dredging operations were commenced on August 7, 1912, and continued until October 9 following, when the amount contracted for was removed, but owing to some filling in by shifting sand, the channel as proposed was not fully completed.

On September 18, 1913, a contract was entered into with the Northern Dredging Company, Ltd., of St. John, N.B., for the removal of 50,000 cubic yards scow measure, of sand, at the rate of 30 cents per cubic yard, to complete the channel to a width of 150 feet and to a depth of 16 feet at low water; the work was commenced on September 22, 1913, by the suction dredge *Prince Ito* and plant, and continued until December

3rd following, when the work was completed by the removal of 50,036·2 cubic yards, scow measure, of sand, which at the rate of 30 cents per cubic yard, involved the expenditure of $15,028.86.

From a survey of the channel made immediately after the completion of the work, it was found that the total amount removed under this contract was 41,500 cubic yards in place, so that the expansion factor in this case was 20·56 per cent.

The channel as completed is 2,400 feet in length, nowhere less than 150 feet in width, and with a minimum depth of 16 feet at low water. Spring tides rise 3½ feet.

CHEVERIE.

Cheverie, Hants county, with a population of 350, is situated on the right or east bank of the river Avon, where it debouches into the Basin of Minas, some 15 miles north of Windsor, the county town. It is a good farming district, but the principal trade of the place is the quarrying and shipping of gypsum to the United States.

A wharf, about 100 feet long, was built many years ago by the Provincial Government. In 1873-4, the department lengthened it to 170 feet at a cost of $2,338.88, the extension being of round-log cribwork, like the old work. In 1882, a further extension of 182 feet was built at a cost of $5,000. This piece of work is of square timber, close-faced, 25 feet high, 25 feet wide on the top, the same width as the former, and the sides batter 1 in 12. In 1885, the sum of $600 was expended in much needed repairs to the work.

In 1884, the department built a detached breakwater 300 feet distant from the outer end of the wharf for the purpose of protecting the latter from northerly seas, to which it was exposed. This piece of work consists of solid cribwork, 130 feet long, 20 feet wide on top, 35 feet wide at the base and about 23 feet high, built of square timber and close-sheathed on all sides. The seaward side, to a height of 10 feet below high water of spring tides, has a slope of 1 in 1, the sloping faces being covered with 6-inch plank. The block is provided with mooring posts to assist vessels in coming to berth at the wharf, as well as with ring bolts and ladders. In 1887-8, the sum of $500, and in 1906-7 the sum of $100 was expended in repairs. On the outer 100 feet in length the flooring, guards and some of the fenders were renewed; 60 feet shorewards was floored, and 205 feet in length of the wharf was raised to a height of 1 to 3 feet. In 1902, the sum of $768.23 was expended in the purchase of timber in readiness for the next year. In 1902-3, the sum of $2,999.34 was expended in the construction of an extension to the detached breakwater. The new work was 100 feet long, 25 feet wide on top, 22 feet high, battering on the landward side 1 in 4 and plumb on the seaward face. In 1903-04, the sum of $1,487.29 was expended in renewing the top of the middle third in length of the wharf, 80 feet long, 11 feet deep and 30 feet wide. In 1905-6, the sum of $1,000 was expended in taking down and rebuilding a portion of the shore end of the cribwork, 80 feet long, 8 to 12 feet high and the full width of the work, and in rebuilding and reinforcing the block on the north side of the work, 100 feet long, 5 to 8 feet wide, to the full height of the work. In 1908-9, the sum of $2,935.19 was expended in extensive repairs and renewals. In 1909-10, the sum of $4,337 was expended in constructing an addition to the wharf. The extension is 80 feet long, 25 feet wide on top, 30½ feet wide at bottom and 27 feet high, built of native cribwork and filled solid with stone. The work was done under contract with H. Macaloney, of Parrsboro, N.S.

In 1913-14, the sum of $2,198.64 was expended in general repairs to the breakwater and wharf. Thirteen new fenders were placed on the protecting block, new stringers on the sloped top of this portion of the work, and new hardwood covering over an area 90 by 15 by 7 feet; new fenders, thirteen in number, were placed on the breakwater, heavy iron straps placed on the corners of the work and 4,000 feet of new covering and new mooring posts. The outer end of the wharf was built up 2 feet for a distance of 60 feet, the wharf was replanked for a length of 200 feet, and new floor-stringers supplied. The

inner end of the wharf was widened by 15 feet for a length of 90 feet, and ballasted with 250 to 300 tons of ballast. Several boulders were removed from the approach to the work.

Work was begun in October and completed in December, 1913.

CHURCH POINT.

Church Point, Digby county, is situated on the southeast side of St. Mary's bay, Bay of Fundy, 9 miles southwest of Weymouth. It has a population of some 200 or 300 people, engaged in fishing and farming. The works here, which consist of a wharf, a retaining wall and a breakwater, all of native timber cribwork, were built between 1855 and 1865, at the joint expense of the inhabitants and the Provincial Government. Since 1875, the department has made numerous expenditures in repairs, renewal and extensions, of which a full account will be found in the departmental reports for 1910-11 and 1911-12.

In 1912-13, the sum of $369.34 was expended in renewing the sluice-gates at the foot of the tidal pond, which are used for clearing away the gravel from the berth for vessels alongside the wharf, and the placing of seven new mooring posts along the face of the wharf.

The expenditure for 1913-14, amounting to $311.43, was for the repairing in several places of the deck of the groyne which had suffered damage from heavy seas during the preceding winter.

CLARKE'S HARBOUR.

Clarke's Harbour, Shelburne county, is a town of about 1,300 people, located on the southwestern side of Cape Sable island, the southernmost portion of Nova Scotia. The value of the shipping at that place is about $60,000 for boats, $15,000 for small steamers and $20,000 for schooners. The harbour is shallow, with an extremely rocky bottom, and several expenditures have been made by the department in the removal of rocks from the channel and in the approaches to the various wharfs along the water-front.

During the past year, $1,500 was expended in removing 168 cubic yards of rock, which would make the cost about $6.88 per yard, or $3.40 per ton. The rocks removed were practically all granite. They were embedded in the mud, and required considerable blasting before they could be removed, which made the cost higher than under more favourable circumstances. Spring tides rise here about 9 feet; neap, 5½ feet. The work was commenced on December 19, 1913, and completed January 1, 1914.

COFFINS ISLAND.

Coffins island is situated in Queens county. It is about 2½ miles long, varying in width from one-quarter to three-quarters of a mile, situated on the eastern side of Liverpool bay. The cove where the dredging was performed is at the extreme northern end of the island. It has no regular population, but is a fishing station utilized by from 100 to 125 fishermen, during the lobster and cod season.

The shipping consists of large boats from 2 to 5 tons burden; two small steamers about 60 feet in length over all, and an 80-ton schooner which twice a year lands coal for the light on the southern end of the island. Most of these boats employ gasoline engines as auxiliary power, and are worth from $200 to $600 each. There are about eighty of these boats. Before the dredging could be performed, a number of rocks in the entrance and on the inside of the cove were removed, so that the *Canada* could not only get in but have a safe berth inside. There were 206 cubic

yards removed at a cost of $1,160. This work was commenced on April 21, 1913, and completed on May 16, 1913. On July 7, the *Canada* began work, and completed the same on July 19, 1913, during which time she removed 2,700 cubic yards of spoil.

There is now fairly good mooring grounds for a large number of the boats at present fishing from there. Spring tides rise here 7 feet; neap, 4½ feet.

COMEAUVILLE.

Comeauville, Digby county, is a straggling settlement of some 500 people, engaged in fishing and farming, situated on the eastern shore of the Bay of Fundy, 35 miles southwest of Digby, the county town.

For a full account of the work at this place, see departmental report for 1903.

The last expenditure was made in 1902-3, $1,998.49, which was expended in extending the breakwater by a new block 40 feet long, 28 feet wide and from 22 to 28 feet high, substantially built of stone filled cribwork, close-sheathed on the seaward face and outer end. Spring tides rise 21 feet; neaps, 17 feet.

In 1913-14, the department expended the sum of $599.06 in rebuilding the upper 3 feet in height of the outer block of the breakwater, which had settled from 1 to 3 feet, under the action of scour, also the removal of a quantity of sand and gravel near the outer end of the breakwater that obstructed the entrance of schooners to the breakwater.

COTTAGE COVE.

Cottage cove, Annapolis county, is a very slight indentation in the coast line of the south side of the Bay of Fundy, about 2 miles west of Port George. The population of the place comprises about 100 people, engaged in fishing and farming.

To afford some slight protection to the fishing boats, the department, in 1911-12, expended the sum of $959.33 in the construction of a small breakwater. The work is 70 feet long, 20 feet wide and from 5 to 11 feet high.

In 1912-13, the sum of $1,200.07 was expended in completing the breakwater, 70 feet long, built last year, and in building an extension, 60 feet long, 25 feet wide and from 14 to 18 feet high. Owing to the lateness of the season at which the work was begun, and frequent and severe storms, the work was not completed.

In 1913-14, the sum of $3,300 was spent in completing the extension and in the construction of a further extension, 80 feet long, 20 to 30 feet wide, and from 18 to 20 feet high. This appropriation was exhausted in January, 1914, leaving the work unfinished, and a further appropriation will be necessary for the completion of the work.

CUNNINGHAM'S POINT.

Cunningham's point, Guysborough county, is on the southern side of Milford Haven river (Guysborough harbour), 8 miles in from the entrance and within half a mile of the head of navigation for small vessels.

In 1904-5, a wharf was built, consisting of a stone abutment and embankment, two crib blocks 18 feet by 20 feet, an outer block 20 feet by 40 feet, with one span of 13 feet and two spans of 16 feet. Soundings along the outer 40 feet give 10 feet of water at L.W.S.

During 1913, the sum of $518.40 was expended in repairs to the upper cribwork, and in the replacing of floor-stringers, covering and guard-rails.

D'ESCOUSSE.

D'Escousse, Richmond county, is a thickly settled district on the northeastern coast of Madame island, and on the southern side of the eastern entrance to Lennox Passage, a strait connecting St. Peter's bay with the strait of Canso.

A wharf with a warehouse attached, was constructed by the department during 1902-3. With the exception of a cribwork shore abutment, 15 feet in length, the wharf is a pile structure extending to 12 feet at low water, 307 feet long and 22 feet wide with an "L" on the western side of the outer end, 22 feet by 22 feet; the bearing piles outside of the line of low water being of creosoted timber.

The warehouse, 30 feet long and 20 feet wide, was built originally on a pile foundation on the eastern side of the inner end of the wharf, and as it was found to be inconveniently located to accommodate the steamers and vessels which load and discharge at the outer end of the wharf, during the fiscal year 1909-10, the sum of $633 was expended in removing the warehouse and in placing it on a separate creosoted pile foundation, in the corner formed by the "L" and the main structure of the wharf.

Spring tides rise 6 feet.

During the year 1913-14, the sum of $270.75 has been expended by day labour in the renewal of 11,550 feet b.m. of 3-inch plank covering of the wharf.

Dredging.

The harbour is formed by outlying islands and connecting beaches and is about one-third of a mile in length and one-fifth of a mile in width, with a depth of from 18 to 21 feet at low water springs, which rise 6 feet, but its entrance, which is from the eastward through a narrow and crooked channel, is obstructed by a bar of sand and clay, with only 10 feet at low water over it.

On July 17, 1912, a contract was entered into with Mr. Vivian T. Bertram, of Toronto, for straightening and deepening, to 14 feet at low water, the channel across the bar at the entrance, involving the removal of 27,000 cubic yards, scow measure, of mud, clay and gravel, at the rate of 26½ cents per cubic yard; the dredge *Etang* and plant, commenced operations on October 24, 1912, and continued until November 23 following, when the work was suspended for the season. Up to that date, two cuts about 25 feet in width and about 600 feet in length were dredged to the required depth, and 8,925½ cubic yards of material were removed, which, at 26½ cents per yard, amounted to $2,365.26.

The work under contract was resumed on May 16, 1913, and continued until July 4 following, when it was completed by the removal of 18,084¼ cubic yards of clay, boulders and mud, which at the rate of 26½ cents per cubic yard, involved an expenditure of $4,792.33, during the fiscal year 1913-14.

The completed channel is about 800 feet in length and 100 feet in width, and has a minimum depth of 14 feet at low water.

From a survey made of the work after completion, it appears that the total amount removed under the contract was 20,550 cubic yards in place, the expansion was 31·4 per cent

DEVIL ISLAND.

Devil island, Halifax county, is a small low island about 2,000 feet in length by 1,000 wide, with its highest point about 15 feet above H.W.O.S.T., situated about 8 miles to the southeast of the city of Halifax and one-third of a mile from the mainland of Hartland point, to which it is connected by a reef, covered with 3 feet of sand, and having 3 feet of water over it at low tide. The island is permanently inhabited by about 100 people, wholly dependent upon fishing for their livelihood.

In 1892, a breakwater, 300 feet long, 15 feet wide, with an "L" at the outer end, 30 feet in length, at which there is a depth of water of 5 feet at L.W.O.S.T., was constructed at a cost of $1,941.18. In the next eleven years, various small amounts were expended in making repairs to the work. In 1904-5, the sum of $499.49 was expended

in building a small breakwater on the northern end of the island to prevent the sea from washing around and disturbing boats lying at or near the old breakwater, on the west side. The work measures 155 feet in length, 15 feet in width, and from 4 to 8 feet in height, substantially built of round-log crib-work and filled with stone ballast.

On June 19, 1905, a contract was entered into with Messrs. Reid and Archibald to construct a new breakwater, immediately to the west of the old work, which was so far eaten by the teredo and the limnoria, as to be of little further service. The amount of the contract was $5,980. The work, to the level of the high tide, is of creosoted timber.

In the fiscal year 1912-13, the sum of $13,270.50 was expended in beginning the construction of a concrete and stone breakwater, under contract with Obed. A. Hamm. In the fiscal year 1913-14, the sum of $6,019.02 was expended in the continuance of this contract. The amount of the contract is $26,984 and, to date, the gross amount of $21,432.80 has been expended, and 75 per cent of the work completed.

During the fiscal year 1912-13, it was decided to make a change in the plans and to increase the thickness of the walls, and in the year 1913-14, the work was carried out in the same manner. When the work is completed, the stem will measure 90 feet in length by 16 feet in width and the "L" will measure 150 feet in length and 16 feet in width. Height from 17 to 22 feet.

Work was begun in May and suspended in August, 1913.

DIGBY.

Digby, Digby county, is the shire-town of the county, with a population of about 1,600, situated on the southwestern end of Annapolis basin. It is an important station on the D.A.Ry., 67 miles north of Yarmouth, 150 from Halifax and 20 from Annapolis. It is the port of call for the daily steamer of the D. A. Ry., plying between Digby and St. John.

The pier, nearly 900 feet long, was originally built by the provincial government, some years before Confederation. Full particulars of the work will be found in the departmental reports for 1906-7, 1909-10, 1911-12, and 1912-13.

The wharfage collections at this pier now exceed $4,000. There is consequently great wear and tear, and frequent need for repairs and renewals.

In 1913-14, the sum of $1,310.65 was expended in necessary repairs and renewals to the pier, also the sum of $298.74 was expended in the removal of about 1,400 cubic yards of sand and gravel from alongside the fishing wharf in proximity to the public pier, bringing the total expenditure up to $1,609.39.

Dredging.

In 1913-14, the Maritime Dredging and Construction Co., of St. John, N.B., under contract, removed 79,900 cubic yards of sand, gravel and mud, scow measurement, at 25 cents per yard from the berth and approach to the pier, with the spoon dredge *Iroquois*. The work was begun on the 8th of July, and finished on the 15th of August, 1913. The contract was then extended to include a further 80,000 cubic yards at 24½ cents per yard. The work was begun under the extension of the contract on the 18th of August, 1913, and finished on the 23rd of January, 1914. The total quantity under the extension of contract being 77,989 cubic yards, or a total under the contract and its extension of 157,889 yards, leaving a balance not yet removed of 2,111 yards. The object of this dredging was the enlargement of the berth and approach to the public pier, to facilitate the arrival and departure of the daily steamer plying between Digby and St. John. This dredging was done to a depth of 18 feet at L.W.O.S.T

The same company, under the same contract, undertook to remove 40,000 yards of sand and gravel, by place measurement, from the Racquet, a cove or small bay about half a mile to the north of the Government pier. The work was begun on the 5th of August, 1913, and suspended for the season on the 23rd of January, 1914, between which dates a total quantity of 33,275 yards at 59 cents per yard, had been removed, leaving a balance yet to be dredged of 17,725 cubic yards.

The object of the dredging, which was done to a height of from 3 feet to 6 feet above L.W.O.S.T, was to facilitate the arrival and departure of schooners and other craft at the fishing wharfs. Spring tides rise 27 feet.

DILIGENT RIVER.

Diligent River, Cumberland county, is a scattering settlement having a population of about 200. It is situated about 7 miles west-southwest of the town of Parrsboro. During the fiscal year 1912-13, a wharf was constructed 50 feet in length, 70 feet in width, with a height at its outside end of 22 feet. The first 30 feet in length of this wharf rests on pile trestle bents, separate from each other longitudinally 10 feet, measured from centre to centre of pile heads, whilst the outside 20 feet was constructed of round-log cribwork thoroughly fastened and ballasted.

During the past fiscal year, it was ascertained that scouring was taking place and that moving ice was interfering with the outside portion of the pile trestle work, so that the sum of $250 was granted for the purpose of sheathing and strengthening this wharf. Of this amount the sum of $249.99 was expended. The work was commenced on the 1st day of October, and completed on the 29th of November, 1913. Spring tides rise 39 feet; neap, 33 feet.

EAGLE HEAD.

Eagle Head, Queens county, is a fishing and farming settlement of about 200 people, situated on the eastern side of Eagle bay, on the Atlantic coast, about 6 miles northeast of Liverpool. About thirty-five years ago, the Government of the province of Nova Scotia built a stone breakwater, 195 feet long, with a width on top varying from 20 to 25 feet. Between the years 1878-1882, this Department extended the work a further length of 125 feet. In the years 1900-2, it was further extended a length of 125 feet. The width of the last 125 feet was 30 feet on top and 50 feet at the bottom, it being 17 feet high at the outside end or 4 feet above H.W.O.S.T. The sides were sloped on the outside or seaward face 1½ to 1, and on the inner face ½ to 1. This work is constructed in the shape of a rock bank, the top 2 feet consisting of a covering of large flat slabs of stone. Owing, however, to currents, over which we had no means of control, the harbour on the inside portion of the work began filling up. Besides this, the outside end of the breakwater had received considerable shaking up. In order to effect the necessary repairs, work was commenced on August 13, and ended October 31, 1913, during which time the repairs to the outside end were effected, and an opening 150 feet from the shoreward end of the breakwater was left so as to let the sand escape. During the storm of March 2, further damages were rendered, and a further sum of $175 was expended upon the top and outside end of the breakwater; the remainder was expended in making the opening, 6 feet deep, 20 feet wide in the clear. Spring tides rise 7 feet; neap, 5 feet.

EAST BAY (NORTH SIDE).

East Bay (north side), Cape Breton county, is, as the name implies, on the north side of East bay, an arm of the Great Bras d'Or lake, 5½ miles from its head.

The wharf, built by the Department during 1889-90, is 220 feet in length and extends to 10 feet at low water level, and consists of an approach of brush and stone, 50 feet long and 20 feet wide, of four native timber cribwork blocks, each 20 by 20 feet,

and of an outer block also of native timber, 20 feet in line of work and 40 feet along outer face, with intervening spans of 17½ feet in width.

During the fiscal year 1902-3, the sum of $600 was expended in repairing the approach and in renewing the floor stringers, covering, guard-rails and fenders of the block and span work, and the face-timbers and ties above high water in all the blocks, excepting the outer block.

During 1911-12, the sum of $109.62 was expended in the construction of a freight shed on the wharf. The building is 10 by 12 feet with seven foot-posts, and wall and roof are covered with cedar shingles. It is provided with one wide door and one window, and the outside walls are painted with two coats of paint.

During the year 1913-14, the sum of $1,135.04 was expended in procuring materials for a new block 20 by 40 feet, with creosoted timber substructure, at the outer end of the old work, and in building, placing and securing the substructure in place.

EAST CHEZZETCOOK.

East Chezzetcook, Halifax county, is a deep inlet on the Atlantic coast about 20 miles east of Halifax. The inlet is surrounded by a population of some 300 or 400 engaged in fishing and farming.

During the year 1910-11, the sum of $1,128.33 was expended in the purchase of timber for the construction of a detached breakwater to be completed under the next year's appropriation. During the year 1911-12, the sum of $468.50 was expended in the purchase of additional material for this purpose. In the fiscal year 1912-13, the sum of $7,260 was expended, under contract with Messrs. Gerroir and Sweet, in the construction of a breakwater at the Groves beach. The breakwater is 300 feet in length, 20 feet in width, and has a height of 4 feet above H.W.O.S.T. On the eastern side of the work is a break 3 to 6 inches in height.

In the fiscal year 1913-14, the sum of $4,124.53 was expended in building a crib-work extension to the breakwater, 100 feet in length, 30 feet in width and of an average depth of 21 feet. To complete the work of flooring, sheathing, etc., a further appropriation will be necessary.

Work begun in May and suspended August 5, 1913.

EASTERN PASSAGE.

Eastern Passage, Halifax county, is an important fishing village of some 300 or 400 people, situated on the eastern side of Halifax harbour, 5 miles below the city. A small brook which empties into a cove near this place used to keep the channel open for boats, but of late years the beach which protected the cove has been gradually moving shorewards until protection work has become indispensable.

In 1908-9, the sum of $4,979.71 was expended in constructing a breakwater for the further protection of the harbour. The work was 350 feet long, of which 200 feet is 10 feet wide and 150 feet is 15 feet wide. The work is from 10 to 15 feet high, substantially built of round-log cribwork. Some 10,000 feet in length of brush fence was also constructed to check the driving of the sand.

During the fiscal year 1910-11, the sum of $584 was expended in completing the outer end of the breakwater which was left in an unfinished condition in the year 1908-9. During the fiscal year 1910-11, the sum of $3,345.85 was expended in removing 9,961 cubic feet of sand to form a channel for fishing boats entering and leaving the harbour. Work was done under contract with Messrs. Beazley Bros. of Halifax. During the fiscal year 1912-13, the sum of $193.15 was expended in making repairs to the breakwater. The work done consisted of the placing of sixty fenders, and making repairs to planking and ballasting.

In the fiscal year 1913-14, the sum of $700.47 was expended in the placing of 1,000 tons of ballast, in spiking down old planking, and in placing the approach to the work in a passable condition.

Work was begun in September and completed November 5, 1913.

EASTERN POINTS.

Eastern Points, Lunenburg county, is a fishing settlement about 2 miles east of Blue Rocks, and about 6 miles east of the town of Lunenburg, and is used by the fishermen of the locality for the purposes of their business. It has a population of about 100, and the boneless fish industry now in operation has an output valued at about $4,000.

To provide a safe waterway to the wharves and safe anchorage, a channel from the main channel to the wharves, about 150 by 30 feet, averaging a depth of 4 feet, thence along the wharves for 178 by 30 feet, and an average depth of 5 feet, was opened by hand dredging in October and November; 1,000 cubic yards of mud were removed at a total cost of $499.90.

EAST JORDAN.

East Jordan, Shelburne county, is a straggling settlement of about 400 people, situated 9 miles west of Lockeport, and 8 miles east of Shelburne. It is a mixed fishing, farming and lumbering community, and of considerable importance as a shipping port.

In 1875, the Department built a breakwater costing $24,568. It was 550 feet long, 30 feet wide and, at the outer end, 23 feet high, where at L.W.O.S.T. there is a depth of 12 feet.

It was substantially built of square timber closed-faced cribwork, well bolted, fendered, and ballasted. In the spring of 1879, the outer end for a length of 100 feet was destroyed by a heavy storm to within 2 feet of L.W.O.S.T. This damage was repaired in 1882-3 by an expenditure of $5,046.12 when, owing to the settlement of the seaward or southern side of the work, the greater part of the top was rebuilt and straightened up, the seaward face being thoroughly protected by a riprap wall of stone, reaching to high water mark. Several minor expenditures were made since that date. Work was commenced on September 1, and ceased on March 31, 1914, and consisted of renewals for its entire length and width of plank guard-rails, exterior stringers and floor-stringers. In other words, the entire top was rebuilt to a depth of 2 feet. The stone approach was practically rebuilt, and the outside 80 feet in length of the wharf, which had settled 2 feet, raised to its former height. Some 400 tons of rock were added to the riprap wall. Spring tides rise 7 feet; neap, 4½ feet.

EAST PORT LEHÉBERT.

East Port LeHébert, Queens county, is a village about 15 or 17 miles east of Liverpool, with a population of about 150. All these people are engaged in fishing, their principal income being derived from the lobster fishing. They needed, for a number of years, something to protect their lobsters (when deposited alive in crates) from damage by the floating ice. In 1908-9, the Department constructed, at a cost of about $1,250, protection piers, so situated that boats requiring shelter and protection from the ice, could bring their lobsters and moor their crates in absolute safety. During the past two or three years, this work has been gradually undermining, so that it became necessary to protect it from being entirely destroyed. In view of the above fact, the sum of $292.64 was expended during the last fiscal year upon this work. It was commenced on November 6, and completed on November 29, 1913. Piles were driven around the outside end, and the outer end of the work which had settled about 4 feet in the sand, was practically reconstructed. Spring tides rise 6 feet; neap, 4 feet.

EAST RIVER.

Lock, Dam, Channels, etc.

East River, Pictou county, is the most easterly of the three branches of Pictou harbour. It is navigable for small vessels from opposite Pictou to the town of New Glasgow. With a view to making the river navigable, between Pictou and Trenton, for ocean-going vessels up to 10,000 tons capacity, this Department has, for the last five years, been dredging a new channel and turning basin, the latter being situated opposite the works of the Nova Scotia Steel and Coal Co. at Trenton. This work is not yet completed. As the natural course of this river is somewhat tortuous, it was deemed expedient to obviate this by constructing, through Stonehouse point, a lock, 638 feet long, with regulating raceway, and to cut channels through Cantley and Shipyard point, these channels to be 100 feet and 150 feet wide respectively. To carry out these improvements a contract was let in April, 1913, to Messrs. McDougal Bros., of Ottawa, for $390,701.35.

During the fiscal year 1913-14, the common excavation from the lock and raceway amounting to 70,000 cubic yards were taken out, and 3,600 cubic yards of rock from the lock. About 6,400 square feet of rock face have been channelled. During the winter months, 20,700 lineal feet of spruce piling have been driven in the two timber approach piers, situated at the north entrance to the lock. Cofferdams have been built at both the entrances to the lock.

The total amount for work excavated and material delivered, during the fiscal year, 1913-14, came to $53,607.60, or, after deducting a 10 per cent drawback of $5,007.60, an expenditure of $48,600.

Dredging.

Improvements were undertaken to permit steamships to visit the towns of Trenton and New Glasgow, two industrial centres on its banks.

The departmental hydraulic dredge *Northumberland* was employed on this work each season, since operations were begun in 1908. The cutting, which is 150 feet in width at bottom (except where it is widened to form turning basin), is taken to a depth of 21 feet below L.W.O.S.T., in the part of the river below the regulating lock, now nearing completion, at Stone-house point. Above the lock where the dredge was employed the past season, the cutting is taken only to a depth of 15 feet. This will give a total depth of 21 feet below the regulated surface on the upside, when the lock is completed.

During the season, May 20 to November 11, 1913, the *Northumberland* removed 20,419 cubic yards in deepening, to grade, a cutting made the previous season between Cantly and Shipyard points, 6,420 cubic yards were removed in making a spur cutting from the above channel to the pump house of the Eastern Car Company, and finally 218,669 yards were removed from a part of the Trenton basin, making a total of 245,508 cubic yards measured in situ. The total area dredged over was 695,500 square feet; the average depth of cutting was 9½ feet, and the material removed was clay, sand and gravel.

EAST SHIP HARBOUR.

East Ship Harbour, Halifax county, is a fishing district situated on the Atlantic coast, about 50 miles from Halifax. For the accommodation of the inhabitants, the Department, in the year 1912-13, began the construction of a wharf. The sum of $1,000 was expended in the construction of a stone approach to the wharf and one block of cribwork measuring 20 by 20 feet.

During the fiscal year 1913-14, the sum of $3,500 was expended in continuing the work begun last year. The work, which is now complete, consists of a block

end span wharf with a length, including approach (45 feet), of 225 feet by 20 feet in width, with an "L" 30 by 20 and an average height of 16 feet.

Work was begun in August and completed January 6, 1914.

ENGLISHTOWN.

Englishtown, Victoria county, is situated on the southern shore of, and immediately within, the entrance to St. Ann's harbour (a fine basin, 7 miles in length, about 2 miles in width and carrying a depth of about 50 feet), at the head of St. Ann's bay, on the northeast coast of Cape Breton island.

On August 23, 1899, a contract was entered into for the construction of a wharf at this place in the sum of $6,200; the work was commenced in May, 1900, and was fully and satisfactorily completed on August 11 of the same year.

The wharf is 235 feet in length, and consists of an approach 27½ feet in length and 20 feet in width on top, of three cribwork blocks, each 20 by 20 feet and of an outer block 20 by 40 feet, with openings between the blocks of 17½ feet. The blocks are constructed of round timber laid open-faced with creosoted timber substructure, fully ballasted and fendered, and close-sheathed on the western faces, the outer end, and on the eastern face of the outer block.

The depth at extreme low water at the outer end or along the channel face is 12 feet.

Spring tides rise 5 feet.

As the top of the wharf had been getting gradually weaker and worn by wear and tear, and by the natural decay of the wood, during 1913-14, the sum of $913.92 was expended by day labour in renewal of floor stringers, covering, cap-timbers and upper fenders, and in raising the northeast corner of the outer end of the work, which had settled a depth of about 2 feet.

FELTZEN SOUTH.

Feltzen South, Lunenburg county, is the name given to a large and prosperous fishing settlement situated on the west side of Lunenburg bay, about 3 miles southwest of the town of Lunenburg.

During the fiscal year 1905-6, the Department expended the sum of $2,454.06 in the construction of a pile timber wharf 141 feet long and 25 feet wide, with an "L" on the outer end, giving a face length of 50 feet and a depth of water at L.W.O.S.T. of about 10 feet. The wharf is 18 feet high along the face. The approach 60 feet long, is a bank of stone and gravel.

In the fiscal year 1912-13, the sum of $466.55 was expended in repairs and renewals to this work. Old piles, broken by ice, were removed, and fifty new ones were driven to protect the wharf from further damage and to replace those broken during the past winter.

During the fiscal year 1913-14, the sum of $16,539.10 was expended (under contract with Duncan L. Fraser) in the construction of a breakwater. The work, which is of native timber, is of cribwork, and is 420 feet in length, 20 feet in width for 220 feet of its length, and 25 feet in width for 200 feet, with an "L" 40 feet in length by 20 feet in width. It has a height of 4 feet above H.W.O.S.T.

Work was done between June 2 and November 28, 1913.

FINLAY POINT.

Finlay, point, Inverness county, is on the western coast of Cape Breton island, about 3 miles north of the entrance to Mabou harbour.

During 1903-4-5, a wharf, 15 feet wide and extending to 148 feet from high water to 3 feet at low water, was constructed by the Department to serve as a landing place

and a shelter for boats and, during 1907-8, a cribwork block, 25 feet by 18 feet, was built adjoining the inner face at the outer end of the cribwork.

During 1912-13, the sum of $1,000 was expended by day labour in the construction of beach protection works at inner end of wharf, 200 feet long and 5 feet wide, consisting of pile-work filled in with brush and stone, and during 1913-14, the sum of $499.78 was expended in repairs to beach protection work, built during 1912-13, and in close-sheathing the inner end of wharf to prevent the brook from breaking through it.

FOX ISLAND.

Fox island, Halifax county, is situated on the Atlantic coast of Nova Scotia, 13 miles east of the city of Halifax, and is about 900 feet from the mainland. It is only some 3 or 4 acres in extent, and no point on it is more than 6 feet above H.W.O.S.T. It has no permanent inhabitants, but during the summer season it is used by the fishermen as a fishing station.

In the year 1886-87, the Department built a cribwork protection extending over the whole length of the beach between the island and the mainland, a distance of 935 feet, and in 1892, an extension of 252 feet in length was built to protect the main part of the island. Numerous expenditures have been made for repairs since that date. In the year 1910-11, the sum of $1,408.81 was expended in the construction of a small breakwater 100 feet in length for the protection of a boat landing on the western side of the island. In the year 1911-12, the sum of $1,129.53 was expended in the purchase of material for the construction of an addition to the breakwater. In the year 1912-13, the sum of $1,895.89 was expended in the extension of the breakwater. This addition has a length of 100 feet, is 25 feet in width, and has a height of from 15 to 20 feet. It is built of cribwork, and has a break on the seaward side 4 feet in height.

In the fiscal year 1913-14, the sum of $1,199.98 was expended in placing new logs to bring the work level and in replanking the work for a distance of 75 feet long, 10 feet wide; the wharf which runs out from Fox island was raised from 0 to 3 feet for 80 feet in length by 25 feet in width, and new planking and fenders were also placed.

Work was begun in July, ended November 8, 1913.

FRENCH RIVER.

French River, Victoria county, is a small settlement on that portion of Cape Breton island, known as the "north shore" and is situated about midway between the harbours of St. Ann's and South Ingonish.

An isolated breakwater, 50 feet long and 27 feet wide, in from 6 to 7 feet at low water, and consisting of native timber cribwork, was constructed by the Department during 1891-92, to protect the landing beach, for the benefit of the fishermen of the district. Shortly after its completion, the work was damaged by ice and the work began to settle, and during 1893-4 the work was repaired and re-ballasted, and a bed of brush loaded with stone was placed around it to prevent scour of the sandy bottom, but during 1896 the woodwork was completely carried away, leaving the ballast on the site.

During 1902-3, the sum of $391.82 was expended in constructing a breastwork along the beach and in front of the fishhuts to protect them from the sea, to which they were exposed during stormy weather. This work is 140 feet in length, 8 feet in width and of a uniform depth of 5 feet.

During the fiscal year ended March 31, 1914, a breakwater 200 feet in length and 16 feet in width, on top, with faces battering 1 in 8 and consisting of round-timber cribwork with creosoted timber substructure, fully ballasted and close-sheathed on all exposed faces, was constructed off the western end of the breastwork, for the protection of the landing beach.

FRENCH VILLAGE.

French Village, Halifax county, a small scattered village of about 300 people, is situated on the east coast of St. Margarets bay, about 20 miles from Halifax and 7 miles from the railway station of the Halifax and Southwestern railway.

In 1904-5, the Department expended the sum of $2,037.67 in constructing a pile-wharf, 150 long, 25 feet wide, with an "L" on the outer end, giving a face length of 60 feet, and a depth at L.W.O.S.T., of about 18 feet. The shore approach to the wharf is a rock bank 50 feet long and from 3 to 6 feet high.

In the fiscal year 1913-14, the sum of $386.98 was expended in general repairs to the wharf; the whole length of the work was replanked, 150 by 25 feet; new guard timbers and fenders were placed, several new piles and repairs to the approach were also completed.

Work was begun in October, completed November 15.

FRIAR'S HEAD.

Friar's Head, Inverness county, is on the west coast of Cape Breton island, 6 miles to the northward of the entrance to Margaree harbour.

A work, undertaken in 1900-1, to close an opening in a ledge of rock with the object of affording partial shelter to a small wharf and anchorage for boats, and completed in 1902-3, consisted of a concrete wall, 90 feet in length, 4 feet in width on top and 8 feet in height from 1 foot above low water. In 1903-4, the wall was extended 13 feet and a wall 4 feet in height and 4 feet in width was constructed on its seaward side, to prevent undermining.

During 1913-14, the sum of $251.56 was expended in repairing and strengthening the concrete wall, which had been damaged during a heavy gale.

FRUID'S POINT.

Fruid's point, Shelburne county, is situated about 3½ miles northeast of Lockeport. In 1902, a small wharf, block and span, was constructed by this Department; but in 1906 the Halifax and Southwestern Railway Company brought their railroad lines near this wharf, locating a station within 250 yards of it. As the people of Lockeport and its business interests could best be served from this locality, in 1906 the Department enlarged this wharf.

During the past fiscal year, the sum of $3,796.13 was expended in effecting repairs, and completing the extension. Work was commenced on August 1, and completed on November 29, 1913. The top was replaced, new planks, stringers and guard-rails being repaired. Besides this, an extension 70 feet long and 40 feet wide, consisting of two 20-foot long cribs separate by two 15-foot spans, was constructed. The whole work consists of a rock bank some 112 feet in length, and 415 feet of alternate block and span, constructed of solid cribwork, well fendered, fastened and ballasted. It is 26 feet high at the outside end, and has a common width of 40 feet. The work has been well done, and has been put in such a position that two railway tracks can be placed upon it. There is already one on the wharf, which has been in operation the last eight years; the ferry from Lockeport town calls daily. Spring tides rise 6½ feet; neap, 4 feet.

GABARUS.

Gabarus bay, Cape Breton county, is on the Atlantic coast of Cape Breton island, and is 5 miles wide at the entrance between White point and Cape Gabarus.

In 1901-2, a breakwater, extending 190 feet to 12½ feet at low water was constructed at Harbour point, near the head of the bay. The inner section 70 feet in length, is 16 feet in width, and the outer section, 120 feet in length, is 24 feet in

width on top. The inner section is constructed of native round-timber cribwork, and the outer section of square timber, close-faced, with creosoted timber substructure.

A contract was entered into May 4, 1905, for the construction of an extension to the breakwater, 128 feet in length to 17¾ feet at low water, for the sum of $19,009; this extension consisted of an inner section 47½ feet long and 24 feet wide on top, and an outer section 80½ feet long and 30 feet wide on top, built of square timber, laid close-faced, with ties of round timber, and with creosoted timber substructure, fully ballasted, fendered and close-sheathed on the seaward face at the outer end, and on the inner face for a distance of 15½ feet from the outer end.

The work of construction on the extension was commenced on August 24 and completed on December 31, 1905.

Spring tides rise 5 feet.

During 1913-14, the sum of $599.77 was expended in the construction of a warehouse 24 by 12 feet, and in renewal of some floor-stringers and covering on the inner end of the work.

GABARUS HARBOUR.

Gabarus harbour, Cape Breton county, is on the eastern side of and near the head of Gabarus bay, and is entered by a shoal and narrow channel; although its area is limited, it is of great value to the fishermen of the district.

Several small amounts have been expended to improve the entrance but, owing to the existence of rock, it was found too expensive to improve, and a new channel was opened, 25 feet wide with a depth of from 2 to 3 feet at low water, which was afterwards completed to a depth of 3½ feet at low water and a width of 30 feet at the bottom.

During the year 1911-12, materials to the amount of $499.60 were procured towards the construction of pile-brush and stone work for the protection of the beach which forms the harbour, and during the year ended March 31, 1914, the sum of $1,499.97 was expended in procuring the balance of materials required for, and in the construction of 1,430 lineal feet of work. The work is 5 feet wide and 6 feet deep, and is founded in a trench 2 feet in depth, excavated into the sand beach.

GEORGEVILLE.

Georgeville, Antigonish county, is on the southern shore of Northumberland strait, 6½ miles southwest of Cape George.

In 1891-2, a wharf 207 feet long and 20 feet wide, with an "L" 20 feet by 20 feet, was constructed.

In 1896-7-8, an extension of this work, 44 feet long, 40 feet wide, with an "L" on the eastern side 24 feet by 20 feet, was constructed.

In 1903-4-5-6-7, a further extension, 98 feet long by 24 feet wide, was constructed, with an "L" 40 feet by 24 feet on western side of outer end.

In 1907, the length of this wharf was 349 feet, and the widths as follows: Beginning at the inner end, 187 feet is 20 feet wide, from 187 to 227 is 40 feet wide, from 227 to 251 is 60 feet wide, from 251 to 324 is 24 feet wide, and at 349 the outer face, including the "L," is 64 feet wide.

In 1909-10, the angle formed by the eastern "L" and the extension was filled by a triangular cribwork, fully ballasted and close-sheathed.

In 1910-11, the sum of $793.34 was expended in raising the outer 60 feet of the wharf about 2 feet, and replacing some sheathing.

In the autumn of 1912, a heavy northern gale destroyed the outer block and the "L" (in all 88 feet by 24 feet) of this work.

During 1913-14, the sum of $430.09 was expended in temporary repairs: sheathing western face and outer end of old work, sheathing and ballasting the triangular block, in renewing some covering and reballasting portions of the work.

GLACE BAY BEACH.

Glace Bay beach, Cape Breton county, is situated on the northern coast of Cape Breton island, between the towns of Glace Bay and Port Morien.

During the year 1908-9, the Department constructed, under contract, a work to protect the public road crossing the beach at the head of Big Glace bay, and separating the bay from the Big Glace lake. The work is 4,000 feet in length and consists of pile-work filled in with brush, as follows: Piles were driven 4 feet apart, centre to centre, transversely, and 5 feet apart, centre to centre, longitudinally, in a trench excavated to 2 feet below the level of high water. The space, longitudinally between the piles, was filled in to a height of 6½ feet above the level of high water with small spruce trees, trimmed and closely packed, after which the tops of the piles in each bent were connected with ¾-inch tie rods. The total cost of this work was $9,415.72.

The brush filling, for a distance of about 700 feet, in the central and most exposed part of the work, was washed out by the sea during 1911-12, leaving the piles standing, and during 1912-13, the sum of $647.16 was expended by day labour in replacing the brush on the washed out portion of the protection work.

During the year 1913-14, the sum of $1,998.14 was expended in placing sheet-piling for a distance of 520 feet along the front of the weakest portion of the beach protection work.

GRAND ËTANG.

Grand Etang, Inverness county, is on the Gulf of St. Lawrence about midway between the harbours of Margaree and Cheticamp on the western shore of the island of Cape Breton.

Works designed to improve the entrance to a large pond and thus make it available for the use and shelter of fishing boats and small vessels, were completed in 1894-5, and a bridge across the pond about 500 feet within the entrance, was constructed during 1895-6 and reconstructed during 1902-3.

The works include the dredged channel between two piers placed 87 feet apart, except at the entrance where the distance between them is 44 feet. Each pier consists of brush and stone work, 135 feet in length; brush and stone embankment, with talus and covering of stone, 130 feet in length; open-faced cribwork 100 feet in length, and a cribwork head, 30 feet in line of work by 48 feet, with creosoted substructure reconstructed in 1908-9. The brush and stone work and about 85 feet of brush and stone embankment, on each side, are founded on a bottom excavated to 1 foot above extreme low water, and the remainder of each pier on the natural bottom; the depth at the outer end at extreme low water being 4 feet 6 inches.

The "bridge," as reconstructed in 1902-3, is 563 feet in length, including the east and west approaches of brush and stone, with cribwork abutments, respectively 94 and 51 feet in length, and 438 feet of creosoted pile work. It is provided with a handrail on each side, an opening for boats and a draw. The depth at extreme low water over the central 200 feet, is about 6 feet, and to firm bottom, through soft mud or silt, from 21 to 24 feet.

During the year 1910-11, the bridge was repaired, and 50 feet of the cribwork on each side of the channel were reconstructed.

During 1898-9, dredging between the piers to 6 feet at extreme low water was performed, and during 1910-11-12, the channel, the pond inside up to the bridge, and outside beyond the outer end of works, the depth of water was increased to an average depth of 9 feet at low water by dredging.

During 1911-12, the sum of $479.75 was expended in urgent repairs to the brush and stone channel protection works, and during 1912-13, the sum of $3,000 was expended by day labour in rebuilding the brush and stonework for a height of 10 feet and for a width of about 12 feet, and for a distance of 200 feet on the north side and a distance of 225 feet on the south side.

During the year 1913-14, the sum of $1,000 was expended in repairs to the cribwork heads of the channel protection piers which were severely damaged during the heavy gale of December 30, 1912. The repairs consisted in placing brush mattresses in the bottom of six bays out of which the ballast had been washed, and in filling them in with heavy stone, also in the renewal of part of the plank covering which had been removed by the sea during the gale.

GRAND NARROWS.

Grand Narrows, Cape Breton county, is on the south-eastern side of the Barra strait, which connects the Great with the Little Bras d'Or lake.

The old wharf, near the station of the Intercolonial railway, and serving as a landing place for steamers with mails and passengers from Baddeck, was 287 feet in length, including 67 feet of cribwork, filled with brush and stone and covered with gravel; 80 feet of pile-work, built in 1885-6 by the Department over the remains of an old landing pier built by the Provincial Government, and an extension 140 feet in length built by the Department in 1883-4. The extension consisted of three blocks, each 20 by 20 feet, and an outer block or head, 20 feet in line of work and 60 feet in length, with openings of about 16 feet.

In 1901-2 and 1902-3, $3,012.16 was expended in reconstructing the wharf and in extending it to 10 feet, with creosoted timber pile-work, the work being then 297 feet in length, 24 feet in width for a distance of 277 feet and 30 feet over the outer 20 feet, with a depth at the outer end at low water lake level of 11 feet.

In 1903-4 and 1904-5, $3,901.86 was expended in extending the wharf 37½ feet to 15 feet at low lake level, and in the construction of an "L" 30 feet by 30 feet on the southern side and at the outer end of the extension.

In 1905-6, the sum of $964.44 was expended, $900 for removing the remains of old cribwork which projected beyond the southern face of the pilework extension, and in constructing a freight shed, 25 feet in length and 12 feet in width, and $64.44 for repairing and strengthening the southwest corner of the "L" which had been damaged by a steamer.

During the year 1912-13, the sum of $229.25 was expended in urgent repairs to the covering of the wharf, and during 1913-14, a further sum of $100 was expended in further urgent repairs to the covering.

GREAT VILLAGE.

Great Village, Colchester county, is an important village of about 1,000 people, situated in a thriving farming district, on the north side of Cobequid bay and on the Great Village river, about 1½ miles from its mouth, about 15 miles west from Truro and 3½ miles from Londonderry, the nearest railway station.

In the year 1891, the Department constructed a cribwork wharf on the site of the old structure formerly owned by private parties, and since that date numerous small amounts have been expended in repairs and renewals.

During the fiscal year 1909-10, the sum of $306.48 was expended in renewing the top of the wharf, including planking, floor-stringers, guard-timbers and mooring posts.

During the fiscal year 1912-13, the sum of $492.70 was expended in constructing a vessel bed having a length of 35 feet, width of 20 feet and depth of 5 feet. Also in the construction of beach protection measuring 50 feet in length, 40 feet in width and 3 feet in depth.

In the fiscal year 1913-14, the sum of $599.64 was expended in repairs to the approach of the wharf, replacing of crib for vessel bed, 25 feet long, 15 feet wide and average depth of 5 feet: also in the construction of a brush protection work measuring 50 feet in length, 35 feet wide and held in place with stone. The old vessel bed was removed from the channel of the river.

GROSSES COQUES.

Grosses Coques, Digby county, is situated at the mouth of a small river that enters St. Mary's bay, about 7 miles southwest of Weymouth, and 3 miles from Belliveau's cove. The settlement comprises a scattered population of about 300, engaged in farming, and to a small extent in fishing.

A complete report of the work done at this place may be found in the departmental report for 1904-5.

In 1913-14, the protection to the stream on its northern side was rebuilt and extended shorewards. A length of about 400 feet in all was built, the work being of substantial round log cribwork and the cost $3,997.54.

HALL'S HARBOUR.

Hall's Harbour, Kings county, is situated on the south side of the Bay of Fundy, 65 miles northeast of Digby Gut, and 12 miles southwest of Scott's Bay. It is 12 miles northeast of Kentville, the county town of Kings, and headquarters of the D. A. Ry. The village has a population of about 150, engaged in fishing and farming.

Between 1839 and 1864, the inhabitants, aided by the Provincial Government, built timber retaining walls on either side of the inner harbour, consisting of a land-locked basin, dry at low tide, also a continuation of the sea-wall on the west side to serve as a breakwater and wharf. In 1884, and many times since that date, expenditures have been made by the Department in repairs and renewals, of which full particulars will be found in the departmental reports of 1909-10 to 1911-12.

In 1912-13, the Department expended the sum of $785.54 in taking down and rebuilding 60 feet in length of the eastern breakwater-wharf, which was dilapidated and threatening to fall.

In 1913-14, the sum of $764.72 was expended for the construction of a raft or float to act as a shearwater in facilitating the removal of gravel by a flow of water through the sluice gates in the dam at the roadway.

HANTSPORT.

Hantsport, Hants county, has a population of about 1,500 and is situated on the left or west bank of the river Avon, here 1¾ mile wide, about half-way between Windsor and the mouth of the Avon river, where it enters the Basin of Minas. It is an important station on the Dominion and Atlantic railway, 7 miles from Windsor and 53 miles from Halifax.

The wharf, which was built in 1897-8, is constructed of stone-filled cribwork, 200 feet long, 32 feet wide with an "L" 32 feet long, on the outer end, giving a face length of 64 feet, where it has a height of 26 feet. At high water there is a depth of 23 feet along the face of the work, at low water it is dry.

In 1908-9, the sum of $498.30 was expended in renewing the whole top of the wharf, including guard-stringers and plank.

In 1913-14, the sum of $49.93 was expended in replanking a portion of the work, and in general miscellaneous repairs.

Work done during October, 1913.

HARBOUR BOUCHE.

Harbour Bouche, Antigonish county, on the southern shore of St. George's bay, about 3 miles to the westward of the entrance to the strait of Canso, is a small harbour about a half mile square, with a depth of 14 feet at L.W.S., and an entrance which has been dredged to the same depth.

A private wharf, on the western side of the harbour, 170 feet long by 21 feet wide, consisting of a shore embankment, a shore crib- and pile-work to 10 feet at L.W.S., was purchased in 1908-9.

In 1909-10, the sum of $397.64 was expended in repairs and in constructing an "L" 44 by 22 feet on the southern side.

In 1912-13, the sum of $124.58 was expended in repairs and in procuring covering for further repairs.

During 1913-14, the sum of $999.22 was expended in repairing the approach to the wharf and in re-piling and re-covering a portion of the wharf, also a further sum of $662.02 in building a warehouse on a creosoted pile foundation.

HARRIGAN COVE.

Harrigan Cove, Halifax county, is a settlement of some 400 people, engaged in fishing and farming, situated on the Atlantic coast, 70 miles east of Halifax. In the year 1902, the Department expended the sum of $1,461.71 in the construction of a public wharf. The work, which is constructed on piles, is 120 feet long, 25 feet wide, with an "L" on the outer end, 20 feet long. At the outer end, with a face length of 45 feet, there is a depth of water at L.W.O.S.T. of 5 feet. The approach is an earth embankment, 48 feet long, 25 feet wide and from 2 to 6 feet high.

In the year 1913-14, the Department expended the sum of $189.79 in replacing 550 feet b.m. of planking, building up the walls of the approach 20 feet each in length and for a height of 5 feet, making up 250 yards of fill and grading 50 feet of roadway.

Work begun in November and was completed December 9, 1913.

HORTON LANDING.

Horton Landing, Kings county, is situated at the eastern end of Kings county at the mouth of the Gaspereaux river, about midway between Avonport and Wolfville. It is a station on the Dominion Atlantic railway, and situated in the richest and most fertile agricultural district in the province.

A wharf was built on the left bank, near the mouth of the river, by the Provincial Government, from seventy to eighty years ago. This structure having fallen into decay and become so dilapidated as to be useless for shipping purposes, was rebuilt by the Department in the year 1888-9, at a cost of $2,252.88. The new structure is built upon the site of the old. It is 172 feet long, 65 feet wide at the outer end and 23 feet 6 inches wide at the inner end. It is of open timber cribwork, well fendered, ballasted and covered with plank. The site is a safe and sheltered one, being near the mouth of the river, and though the work is dry at low water, owing to the great range of tide, from 40 to 48 feet, vessels drawing 18 feet can reach it at high water.

In 1903-4, the sum of $70.20 was expended in renewing six mooring posts and a few planks in the floor.

In 1913-14, the sum of $906.20 was expended for the purchase of timber for repairs and improvements to the wharf, but no actual work was undertaken on account of the wharf being in use too late in the season.

INVERNESS.

Inverness, formerly known as Broad Cove, Inverness county, is an incorporated mining town with a population of 3,500, on the northwestern coast of Cape Breton island, about midway between the harbours of Mabou and Margaree, and 60 miles from Port Hastings, on the strait of Canso, with which it is connected by rail.

McIsaac's pond, now Inverness harbour, is separated from the Gulf of St. Lawrence by a sand beach about 400 feet in width. For the purpose of shipping coal from the mines, many years ago, a company dredged a channel through the beach into the pond, and protected its sides with cribwork and pile-work, but after a few years the channel filled up and was abandoned.

The property was bought by the Department with a view of re-opening and protecting the channel.

During 1908-9-10, the sum of $1,592.01 was expended in procuring the necessary native timber required for the reconstruction of 635 feet of the channel protection works on the eastern side of the entrance.

During 1910-11, the sum of $9,911.35 was expended in procuring the creosoted timber required for the reconstruction of the protection work and in the construction and completion of 395 feet of brush and stone work, faced with close-piling and in driving and securing the piles for the outer 240 feet of the protection work, which is to consist of pile-work filled in with brush and stone.

The sum of $3,694.27 was expended during 1911-12, in completing the 240 feet of pile-work on the outer end of channel protection work on the eastern side, commenced during 1910-11; in repairs to the channel protection works on the western side of the entrance, and in excavating a channel 40 feet wide from half tide inside to the same depth outside.

During 1912-13, the sum of $2,468.76 was expended by day labour in the construction of a cribwork extension, 112 feet in length to the channel protection work on the eastern side of the entrance, 16 feet wide for a distance of 96 feet and 20 feet wide for a distance of 16 feet, and in strengthening the beach back of it by depositing brush and stone.

During the fiscal year ended March 31, 1914, the sum of $649.31 was expended in the construction of brush and stone work, 175 feet in length on the beach to the eastward of the entrance to prevent its wearing away with the action of the sea during storms.

IONA.

Iona, Victoria county, is on the northern side of Barra strait, which connects the Great with the Little Bras d'Or lake. It is a station on the Intercolonial railway, and a landing place for the steamer, which, carrying mails and passengers to and from Baddeck, connects twice a day with the express trains bound east and west.

The old wharf, so called to distinguish it from the new wharf, built on the eastern side of the railway bridge, was originally constructed by the Provincial Government, but was acquired by the department, by which it was reconstructed and extended.

The work is 195 feet in length on the western face and consists of an approach 129 feet long and 20 feet wide; of a span 24 feet in length, and of a "head" 42 feet wide on the western, 22 feet wide on the eastern face and 70 feet long on the channel face.

The approach is constructed of close-faced timber cribwork, partly covered with gravel and partly planked over, and the head is built on creosoted timber piling and

was originally protected with hardwood fender piles, but these were replaced with creosoted timber piling during 1907-8.

During the year 1913-14, the sum of $500.35 was expended in the renewal of covering and cap-timbers on the pilework and in repairs to the cribwork approach.

IRISH COVE.

Irish Cove, Cape Breton county, is on the southeastern shore of the Great Bras d'Or lake, near the entrance into East bay.

The works are: a wharf, completed in 1892-3, and the diversion of a brook in 1907-8.

The wharf is a block and span structure of native timber, 161 feet in length and 20 feet in width, consisting of a shore abutment 47 feet in length; a central block 20½ feet in length, and an outer block, 57 feet in length with an "L" 20 by 20 feet. The depth at the outer end is 12½ feet at low or 13½ feet at high lake level.

A brook flowing through low meadow to the shore and thence in an easterly direction, between the shore and a beach of shingle which had gradually extended to within 270 feet of the wharf, was closed (in 1907-8) by the construction of a cribwork dam 40 feet in length and diverted by a new channel straight through the beach at a point 550 feet to the westward of the wharf.

During the fiscal year 1909-10, the sum of $964.52 was expended, $614.75 in repairs to the wharf, including the renewal of 145 piles of the close-piling of the outer block and 4,800 feet b.m. of covering, and $349.95 in constructing a work of brush, stone and piles extending inward, along the east bank of the brook, 240 feet from the dam, to prevent the brook from cutting through the low meadow land and resuming its former easterly direction.

During 1910-11, the sum of $600.31 was expended on the works: $416.20 in extending the dam on the eastern side of the brook, a distance of 250 feet, and $184.11 in placing and securing 43 new pieces of close-piling on weak portions of the blocks in the wharf.

During the fiscal year ended March 31, 1914, the sum of $199.86 was expended in urgent repairs to the wharf, consisting of close-sheathing the outer faces of two blocks, in raising some of the floor-stringers and in the renewal of the wharf covering where absolutely necessary.

JEDDORE.

Jeddore, Oyster Ponds, Halifax county, is the name given to a settlement of some 500 people, situated at the head of Jeddore harbour. The principal industries are farming and lumbering.

During the fiscal year 1905-6, the Department expended the sum of $1,185.11 in the construction of a block and span wharf, 114 feet long, comprising a stonework approach 35 feet long, 20 feet wide and 8 feet high; 3 spans of 13 feet each, and three blocks of substantial cribwork, two of them 11 by 20 feet and the other one 21 by 21 feet, at the face of which there is 12 feet of water at L.W.O.S.T.

In the fiscal year 1913-14, the Department expended the sum of $168.26 in replacing five mooring posts and new caps on sides and ends of the work. About 300 feet of new covering was placed and a crane with blocks and chain was supplied.

The work was begun in December and finished January 6, 1914.

JONES HARBOUR.

Jones Harbour is situated about 22 miles northeast of Shelburne town, and is on the eastern extremity of Shelburne county. The population is about 150, but there are at various seasons of the year from 50 to 60 fishermen who use this little inlet for the purpose of carrying on their industry.

The shipping at this point consists entirely of fishing boats, there being at times about 50 employed here. During the lobster season, small steamers call for the purpose of obtaining lobsters for the various markets. The boats used here range from one-half to 10 tons burden, and average about $300 per boat in value.

The nature of the work was the removal of a number of boulders from the channel to the Government wharf. Its object was to place the channel in such condition that it could be used at all times of tide, with every assurance of safety. During the fiscal year 1912-13, about 175 tons of stone, consisting principally of small boulders, were removed, while in the year 1911-12, 125 tons were removed. During the past year, this work was completed, there being 348 cubic yards of stone removed, at a cost of $7.25 per yard, or about $3 per ton. The character of the stone that was removed is blue whin, or trap, which is an exceedingly heavy quality of stone, about 11½ cubic feet equalling a ton in weight. Work was commenced on June 3, 1913, and completed on July 1, 1913. Spring tides rise here 7 feet; neap, 4½ feet.

KELLY'S COVE.

Kelly's Cove, Yarmouth county, about 3 miles south of the town of Yarmouth. About a century ago it was the harbour of the place, and around its shores was all that constitutes the town.

Some years before Confederation, the Provincial Government built a breakwater, 97 feet long 23½ feet wide and 16 feet high at the outer end. The first expenditure by the Department appears to have been in 1897-8, when the old work was partially rebuilt.

A full account of the departmental expenditures from 1905 to 1913 may be found in the departmental report of 1912-13.

In 1913-14, the sum of $49.37 was expended in filling up a gap, about 15 inches wide, between the older portion of the breakwater and the extension built some three years ago; the new block having been shifted slightly by a great storm in January, 1913. Petty repairs were also made to the floor of the outer portion of the breakwater. More extensive repairs are still required.

KINGSPORT.

Kingsport, Kings county, is a village of some 500 people, on the southwest side of the Basin of Minas, between the mouth of the Cornwallis river and Cape Blomidon. It is the terminus of a branch of the D.A.Ry. running to Kentville, 14 miles to the south. A pier, 445 feet long, of pile-work, stood here when the harbour was taken in charge by the Department of Public Works. The first work done by the Department was in 1873-4, when the eastern or exposed side of the wharf was protected with crib-work. Since this date, several expenditures have been made in repairs and renewals, of which a full account will be found in the departmental report for 1911-12

In 1912-13, the sum of $386.95 was expended in emergent repairs to the floor of the pier. Spring tides rise about 45 feet.

In 1913-14, the sum of $415.01 was expended for emergent repairs to the pier, and for the purchase of timber for the renewal of the floor which is unsafe for railway purposes.

KRAUT POINT.

Kraut point, is situated at the entrance to the harbour of Riverport, one of the most important shipping points in the county of Lunenburg. It is about 16 miles, by river, from the town of Bridgewater, and about 10 miles from the town of Lunenburg. To accommodate the fishermen of Riverport during the winter months, when their harbour is frozen over, the Department, in the year 1912-13, began the construc-

tion of a wharf. The work has a length of 90 feet, width of 25 feet, with an "L" 110 feet long by 30 feet wide; the expenditure amounted to $2,502.10.

In the year 1913-14, the department expended the sum of $1,498.70, in an extension to the wharf begun last year. This extension measures 50 by 30 feet, and is close-fendered.

Work begun in May, and final return forwarded January 21, 1914.

While the pile driver was on its way from East Chezzetcook to Kraut point, it was overturned and considerably damaged, and the Department expended the sum of $400 in pumping the pile driver out and in making the necessary repairs.

L'ARDOISE.

L'Ardoise, Richmond county, is on the eastern side of St. Peter's bay, near its entrance from the Atlantic ocean, and about 9 miles to the eastward of the southern entrance to St. Peter's canal.

The outer 400 feet of the breakwater at Martin's point, originally isolated but connected with the mainland in 1903-4-5, consisted of a cribwork core, placed over the remains of a former structure, covered with stone sloping 3 to 1, on the seaward side and at the outer end, and 2 to 1 on the inner side, and having a concrete wall, founded at 4 feet above extreme low water, over the cribwork core on the seaward side and at the outer end, 3 feet in width on top and 4½ feet in height, with the top flush with the surface of the stone covering.

Slight disturbances of the stone covering took place yearly from 1900 up to the winter of 1904-5, when during a furious gale, large masses of ice were thrown against the structure, destroying the covering stone, cutting several gaps through the concrete wall and covering and destroying the cribwork foundation of the concrete wall in places.

In 1906-7-8-9, a new wall of large stones and concrete, founded 2½ feet above extreme low water, was constructed outside of and close against the concrete wall on the seaward side and at the outer end, with the exception of 27 feet on the seaward side, 9 to 36 feet from the outer end, and the covering stones were replaced.

During the fiscal year 1910-11, the sum of $2,515.49 was expended in completing the stone and concrete wall on the seaward side 9 to 36 feet from the outer end; in replacing ballast and covering stones on each side of it; in constructing a concrete wall to protect the stone and concrete wall at the outer end and on the seaward side over a distance of 9 feet from the outer end, and in replacing the covering stones of the slope on the seaward side over a distance of 138 feet from the inner end outward and on the inner side over a distance of 168 feet from the outer end inward.

During 1912-13, the sum of $799.94 was expended in filling in some gaps in the concrete wall on the seaward face of the breakwater with concrete, in order to make it secure until a large appropriation can be obtained to repair the work thoroughly, and during 1913-14, the sum of $1,250 was expended in completing the repairs to the concrete wall on the seaward face of the breakwater, commenced during 1912-13.

LARRY'S COVE.

Larry's cove, Halifax county, is situated just east of the entrance of St. Margaret's bay, 36 miles west by water from Halifax. It is hemmed in on either side by a high rough shore. The population is about 100, and the principal industry is fishing.

During the months of September, October, and November, 278 yards of boulders were removed from the boat channel to give a depth of 6 feet at low water.

The expenditure for the fiscal year was $603.73.

LEONARD'S COVE.

Leonard's cove, Annapolis county, is a slight indentation in the coast line of the east side of the Bay of Fundy, 2½ miles east of Parker's Cove. The population comprises about 100 people, engaged in fishing and farming.

In 1911-12, the department expended the sum of $1,277.98 in beginning the construction of a breakwater and in the purchase of timber for its extension, for the protection of the fishing fleet. The work built last year was 50 feet long, 20 feet wide, and from 5 to 10 feet high.

In 1912-13, the sum of $899.88 was expended in extending the breakwater built last year, by a block of substantial cribwork, 60 feet long, 20 to 27 feet wide, and from 11 to 16 feet high. Spring tides rise about 24 feet.

In 1913-14, the sum of $1,014.52 was expended in the completion of the breakwater partially built in 1912-13. The whole work is now 114 feet long, from 18 to 26 feet wide, and from 6 to 17 feet high.

LINGAN BEACH.

Lingan, or Bridgeport harbour, Cape Breton county, is at the head of Indian bay, on the northeast coast of Cape Breton island, about 5 miles to the eastward of the entrance to Sydney harbour. A large pond or basin, having a depth of 8 feet at low or 12 feet at high water, is separated from the Indian bay by a beach of sand. The entrance, which forms the harbour, was deepened and straightened by dredging in 1878-80, to improve facilties for shipping coal from the Lingan mines, since abandoned. It is now crossed by a bridge built by the Provincial Government, for the accommodation of traffic over the beach between Lingan and Bridgeport.

A work of brush and stone, 1,900 feet in length, constructed in 1876-8, afforded sufficient protection to the beach up to 1893, but has since been carried away, in places, over distances aggregating 1,400 feet.

In 1901-2, 1902-3, and 1903-4, the sum of $3,597.54 was expended in reconstructing 1,900 feet of brush and stone work, in extending it 80 feet and in constructing a crosswall of brush and stone, 300 feet in length, between it and the bridge.

During the fiscal year 1904-5, the sum of $999.98 was expended in extending the beach protection work 350 feet to the entrance, and in raising it, 1 foot 3 inches over 500 feet, and 2 feet over 300 feet of the length.

During 1913-14, the sum of $3,999.99 was expended by day labour in the reconstruction of 1,400 lineal feet of brush and stone embankment, 10 feet wide on top, sloping ½ to 1 at the side and of an average height of 4 feet.

LITCHFIELD.

Litchfield, Annapolis county, is a fishing and farming settlement on the south coast of the Bay of Fundy, 14 miles northeast of Digby Gut.

A breakwater was begun here by the department in 1904-5, and completed and extended in the three following years. (Particulars in departmental report for 1911-12.)

In 1912-13, the sum of $2,578.21 was expended in completing the 60-foot extension built last year, and in the construction of a further extension, 80 feet long.

In 1913-14, the sum of $1,100 was expended in the partial finishing of the extension, 80 feet long, of the breakwater begun in 1912-13.

The new block is 80 feet long, 30 feet wide and from 18 to 20 feet high. It still lacks 50 feet in length of covering and the whole of the sheathing. To finish the work would cost about $350. The inability to finish the work within the appropriation was due to high cost of purchasing and hewing timber.

LITTLE ANSE.

Little Anse, Richmond county, is a boat harbour on the eastern coast of Petit de Grat island, which lies to the eastward of Madame island off the southern coast of Cape Breton island.

On September 25, 1911, a contract was entered into in the sum of $21,500 for the construction of a breakwater off Birch point on the northern side of the entrance to the harbour, for the protection of the anchorage inside.

The work of construction was commenced on June 17, 1912; steady progress was made up to December 28, when the work was visited by an unusually heavy gale accompanied by a tidal wave, which caused heavy damage. The work was then secured for the winter and operations were suspended and at that time the work in place was as follows:—

The approach of stone was completed; the whole of the creosoted timber substructure of the cribwork was placed and secured, and the superstructure was completed to within 100 feet of the outer end.

The work was resumed on April 15, 1913, and was finally completed and accepted on August 20, 1913.

The work is 600 feet in length and extends to 12 feet at low water, and consists of stone approach 80 feet long and 20 feet wide, and of a round-timber cribwork extension with creosoted timber substructure, 520 feet in length, 20 feet wide for a distance of 400 feet, and 24 feet wide for the remaining distance. The cribwork has been filled in solidly with ballast, and its seaward face and outer end have been close-sheathed.

LITTLE BRAS D'OR.

The Little Bras d'Or channel, Cape Breton county, is a narrow and winding passage on the eastern side of Boulardarie island, connecting St. Andrew's channel, an arm of the Bras d'Or lakes, with the Atlantic, entering the latter on the eastern coast of Cape Breton island, at a point about 5 miles to the northward of the entrance to Sydney harbour.

The passage is about 5 miles in length, and has a width averaging 600 feet and a depth of from 3 to 4 fathoms, excepting at its entrance from the Atlantic, where it is obstructed by a bar, which carries but 7 feet at low water.

On April 10, 1912, a contract was awarded to Messrs. McNutt and Landry for the construction of a breakwater, extending from the mainland to the eastern side of and along the edge of the dredged channel to prevent the sand from being carried by the sea into the harbour inside the bar.

The work of construction was commenced on June 12, 1913, and was completed and accepted on November 29.

The breakwater is 360 feet in length, with a return 100 feet in length, and 20 feet in width on top, consisting of continuous round-timber cribwork, with creosoted timber substructure, filled solidly with ballast and fendered and close-sheathed on the seaward side.

Dredging.

The object of the dredging at this place is to obtain a channel, 120 feet wide and to a depth of 20 feet at low water over the bar at the entrance, and a channel 80 feet wide and with 18 feet at low water, in continuation thereof, inside of the bar, the former being 2,400 feet and the latter 2,100 feet in length, to permit the passage at all times of tide, of vessels and steamers engaged in the coal-carrying trade from and to the newly opened coal mines at the western end of the passage.

The work was commenced by the Government dredge *Cape Breton*, during 1910-11, and continued for a few months during each year since, and would have been completed

during the year ended March 31, 1914, but for a serious break in the machinery, which necessitated the suspension of operations. The operations during 1913-14 were commenced on July 17, 1913, and continued until October 9, following, and during that period, 42,350 cubic yards, scow measure, of mud, sand, and rock were removed. The survey made after the suspension of operations showed that the amount of material removed is 31,500 cubic yards in place, and the expansion was about 32 per cent.

LITTLE LORRAINE.

Dredging.

Little Lorraine, Cape Breton county, is situated on the eastern coast of Cape Breton island, 7 miles to the north-eastward of Louisburg harbour. The harbour is about three-quarter of a mile in length and is divided into an outer and inner harbour by a gravel beach projecting from the eastern side. A sandbar, with a maximum depth of 6¾ feet at low water, stretches across the outer harbour, about 600 feet south of the entrance to the inner one.

In order to permit steamers of small draft to enter this harbour and enable fishermen to ship fish directly to Halifax, instead of boating them to Louisburg to be transhipped, it was decided to deepen the channel across the bar; on September 22, 1913, a contract was entered into with the Atlantic Dredging Company, Ltd., for the removal of 40,500 cubic yards, scow measure, at the rate of 30 cents per cubic yard.

Operations were commenced on September 6, 1913, and continued until December 4 following, when the work was completed and the quantities of materials removed, and the rates for the different classes of work are as follows:—

40,900 cubic yards, scow measure, of sand, mud, gravel and stone, at 30 cents	$12,270 00
49·19 cubic yards, of rock and boulders, 2 yards and over, at $6	295 14
	$12,565 14

The work done consists in the dredging of a channel to a depth of 12 feet at low water, 2,375 feet in length, of which the outer section, 1,350 feet in length, is 100 feet wide, and the inner section, 1,025 feet, is 125 feet wide.

The quantity of material, in place, removed is 32,100 cubic yards and the expansion factor is 27½ per cent.

LITTLE NARROWS.

Little Narrows, Victoria county, is on the south side of Little Narrows, a contraction of St. Patrick's channel, an arm of the Bras d'Or lakes, at a point about 7 miles to the eastward of Whycocomagh, and 15 miles to the westward of the town of Baddeck.

The original wharf was constructed by the department during 1887-8, and consisted of an approach of stone, 10 feet long and 20 feet wide on top; a cribwork block, 47½ feet long and 20 feet wide, and a native timber pile extension, 72 feet long and 20 feet wide, with an "L" 40 feet long and 20 feet wide on the western side of its outer end and after its completion, a warehouse was built on the western side of the shore abutment.

Owing to damage by the teredo, during 1897-8, it was found necessary to reconstruct the outer end; a "T" head, 60 feet in length, was substituted for the outer 20 feet of the wharf and "L," and the bearing piles in three bents of the approach were renewed.

During 1901-2, extensive repairs were again made and in 1902-3, the head was extended outwards a distance of 12 feet with pile-work.

During the year 1908-9, the sum of $2,646.40 was expended in procuring all the materials required for and in reconstructing the pile-work with creosoted timber. The new works extend to 18 feet at low lake level, and consist of an approach 52 feet long and 20 feet wide, with a "T" head, 60 feet long on the channel face and 32½ feet wide; all bearing, fender, and mooring piles and braces, walings and lower chocks being of creosoted timber.

During the year 1912-13, the sum of $100 was expended in the partial reconstruction of the cribwork block at the inner end of the pile-work, which was originally built during 1887-8, and during 1913-14, the sum of $250 was expended in completing the reconstruction of the cribwork block, commenced during 1912-13.

LITTLE RIVER.

Little River, Digby county, is situated on St. Mary's bay, on the inner or eastern side of the peninsula known as Digby Neck. It is about 5 miles northeast from Petite Passage, and 25 miles by road southwest from Digby town. Within a radius of about 2 miles is a population of four or five hundred, engaged in fishing and farming. A fish canning and curing establishment has an annual output of the value of about $8,000. Small steamers between Weymouth, Meteghan, and St. John, and some minor ports on St. Mary's bay call at the place about four times a week.

For a full account of work at this place from 1910 to 1913, see annual report for 1912-13.

In 1913-14, the sum of $147.70 was spent in the removal of a small quantity of rock that obstructed the approach to the breakwater, and in the repair of the dry rubble wall that protected the road approach.

LIVERPOOL.

Liverpool is the shire town of Queens county, situated at the head of Liverpool bay. It has a population of about 2,800 people, and is a most important shipping port on the southern coast of Nova Scotia.

The total tonnage using the port was between thirty-eight and forty thousand. The number of vessels owned in Liverpool is about eighty-five, ranging from 9 to 250 tons burden each; the total tonnage owned in the port being in the vicinity of 9,000.

During the fiscal year 1912-13, the dredge *Canada* was engaged the entire season in removing 106,860 cubic yards, scow measurement, of material. During the past fiscal year, she began work in Liverpool on May 26, and suspended it for the season on July 26, 1913. During that time, she removed 15,800 cubic yards. In making a report last year upon this work, it was estimated that 3,500 cubic yards, place measurement, or 4,200 cubic yards, scow measurement, were necessary to be removed in order to temporarily join the outside and inside portions of the channel. This channel, however, seems to be continually filling up, so that considerable of the discrepancy between the actual amount taken and what was estimated, must be accounted for in that way. The expansion factor in this particular case was very large, and since August, 1913, when a survey was made, from opposite the marine slips, it shows depths at L.W.O.S.T. from 13·2 to 13·4 feet; there has been a vast amount of filling in, so that on April 3, 1914, the channel was again sounded, and, for a considerable distance, only 10 feet depth was found, showing a filling in of from 3½ to 4½ feet since August, and the bar across the harbour which extends from the black buoy, to midway between the marine slip and what is called the steamship wharf, has been rendered unnavigable to any sized vessels. Spring tides rise here 6 feet; neap, 3½ feet. Material removed consisted of mud and sawdust.

LIVINGSTON'S COVE.

Livingston's cove, Antigonish county, is situated on the southern shore of Northumberland Strait, about 2 miles southwest of Cape George.

In 1903, a pier was constructed consisting of 30 feet of shore abutment with stone retaining walls, 282 feet of cribwork 24 feet wide, and an "L" 24 feet by 24 feet on the southern side of the outer end, all fully ballasted, fendered on the northern face, and close-sheathed on the outer end and southern face of the "L" with 6-inch hardwood.

In 1907-8, damage by the teredo rendered it necessary to close-pile with creosoted timber 188 feet of the face of the structure, and to strengthen the portions not piled, with a talus of quarried stone.

In 1909-10, the sum of $200 was expended in renewing a portion of the covering and placing 80 cubic yards of stone on the talus.

In 1910-11, the sum of $4,302.07 was expended in repairing the approach to the pier, and in purchasing all the creosoted timber and part of the native timber required for a proposed extension 24 feet by 80 feet in line of work.

In 1911-12, the sum of $1,124.92 was expended in procuring the balance of native timber required for the construction of a proposed extension to the breakwater. Spring tides rise 4½ feet.

In 1912-13, the sum of $2,299.76 was expended in nearly completing the extension and renewing some ballast and covering.

During 1913-14, the sum of $589.28 was expended in reconstructing the seaward face of the extension, 60 feet in length, 5 feet in height, and 10 feet in width, and in replacing some piling and earth-filling on the western side of the approach at inner end of wharf.

LOCKEPORT.

Lockeport, Shelburne county, is an incorporated town of about 950 people, situated on the Atlantic sea-board, about 110 miles south west of Halifax, and 80 miles east-southeast of Yarmouth. Fishing is practically the only, and main industry, Lockeport being the pivotal centre of the fishing industry along this shore, and considerable development has taken place there, whilst the prospects for the future seem excellent. The shipping consists of about twenty-one small schooners, ranging from 20 to 60 tons, two schooners of 100 tons burden each, about 150 boats ranging from one-half to 3 tons burden, and four small steamers from 50 to 60 feet in length over all, the entire of which are engaged in connection with the lobstering, herring, and cod fisheries. In the summer months, it is a port of call for a large number of the American fishing schooners seeking bait. During the last summer, over $20,000 of such were sold to American and local interests. The value of the shipping in Lockeport is $150,000. These small vessels make from forty to sixty trips per year, but only appear on the Customs returns, from which the tonnage is calculated, twice during the said year, which makes the business appear smaller than it is.

In order to improve the harbour, during the last fiscal year the department began the excavation of a 200-foot channel to a depth of 15 feet at L.W.O.S.T., and the excavation of an anchorage basin 300 feet wide and 1,200 feet long, situated and joining the southern side of the said channel; also the widening of the channel along the wharf frontage 100 to 200 feet. Work was commenced by the *Canada* on July 29, and ceased December 30, 1913, during which period 83,000 cubic yards, scow measurement, were removed, being about one-half the work which was outlined, there being required 167,088 cubic yards, scow measurement, for removal. The material is composed mostly of sand and mud, the outside 500 feet being composed of hard sand, the inside 200 feet of a mixture of sand and mud, and the balance of soft mud. Spring tides rise here 6½ feet; neap, 4½ feet.

LONG BEACH POND.

Long Beach Pond, Digby county, is situated on the southeast side of Digby Neck, half-way between Little River and East Ferry. It is the site of a small lobster hatchery, maintained by the Marine and Fisheries Department. The lobster pond is connected with St. Mary's bay by a channel, on either side of which there is a cribwork protection to keep the channel open and free from sand and gravel. The place boasts of no permanent population.

In 1913-14, the sum of $300 was expended by the department in raising and repairing this cribwork protection on the seaward side of the entrance channel, and in the removal, by hand digging, of some 300 yards of sand and gravel which had accumulated in the channel, thereby obstructing the entrance of boats to the pond at high water. The work was satisfactorily completed.

LONG COVE.

Long cove, Queen's County, is situated about 3½ miles southwest of Port Medway. It is a long narrow cove, jutting into an indentation of the coast on the southern side of Port Medway harbour. The chief industry is lobstering, but a considerable number of men in the summer time are engaged in other fishing. In order to further encourage the fishing industry, and to afford better accommodation, the construction of a breakwater was commenced during the past fiscal year. The sum of $3,628.28 was expended. The work was commenced August 27, and terminated November 29, 1913. The first 350 feet in length of this work was completed, leaving 100 feet yet to be constructed. When finished, this work will be 450 feet in length, constructed of the usual round-log, continuous cribwork, ballasted to the top, well fendered, and fastened. It is 4 feet above H.W.O.S.T., is 14 feet wide on top with a batter on the outside of 1 to 6 and on the inside of 1 to 12, so that the average width is about 15 feet. It varies in height, the first 80 feet in length having a height of from 2 to 4 feet, the next 80 feet from 4 to 6 feet, the next 80 feet from 14 to 10 feet, and the last 210 feet in length from 8 to 10 feet. The third section of 80 feet in length shows a greater height than the outside end, the reason being that there is a gap between the two ledges along which this work is being constructed. It is situated on the northern side of the cove, running at an angle of about forty degrees from the general direction of the said cove, and partially across the same, so as to prevent the undertow from raking the inside of the harbour, and to create the necessary shelter. The material has been of good quality, the workmanship excellent, and so far progress has been very satisfactory. Spring tides rise 7 feet; neap, 5 feet.

LOUIS HEAD.

Louis Head, Shelburne county, is situated at the head of the mouth of the Sable river, a distance of about 5 miles from Lockeport railway station. It has a population of about 350, who are practically all fishermen, a few being engaged in rough farming. There are about thirty-five fishing boats drawing from 3 to 4 feet of water, the greater number of which are equipped with motor power. This number is materially increasing, and a larger class of boats is being used, better facilities for anchorage having been afforded them.

The present breakwater was built in 1892, it being then 150 feet long, 20 feet wide on top, with a batter of riprap on the outside. It is composed of continuous cribwork, sheathed on the outside, having a height of 23 feet at the outer end; besides this, for its entire length, there is a timber break 4½ feet high, built of 10- by 12-inch timbers laid one upon the other, separate from the outside by 10- by 12-inch posts, and on the inside by heavy timber knees, by means of which latter it is fastened to the main structure.

In the fiscal year 1912-13, the amount of $4,099.96 was expended in repairing the old work and extending it 65 feet in length.

Scouring around the outer end of the new work, which rested in 14 feet of water at L.W.O.S.T., took place, so that the outer crib settled about 3 feet. During the past fiscal year, the sum of $698.48 was expended in rebuilding the outside 65 feet in length of this breakwater to a height of 4 feet, replanking and restringering 100 feet in length of the old breakwater, and adding about 300 tons of ballast in places where formerly it was deficient. The work commenced on September 4 and was completed on October 17, 1913. Spring tides rise 7 feet; neap, 4½ feet.

LOWER PROSPECT.

Lower Prospect, Halifax county, is a small fishing village 20 miles west of Halifax by post road, and 5 miles west of Sambro by water. The population is about 300. The chief industry is fishing, and large catches of mackerel and herring are taken at this place. It is also a centre for lobster fishing, during that season. These people were labouring under great difficulties as, in order to ship their fish, they were compelled to hold them in boats until the steamer called, and imports had to be transferred from sailing vessel or steamer to small boats.

In the fiscal year 1913-14, the department expended the sum of $1,482.62 in the construction of a pile-work wharf, 80 feet long by 25 feet wide, and with an average height of 19 feet.

Work was begun in August and completed on September 27, 1913.

LOWER SHIP HARBOUR.

Lower Ship Harbour is situated on the Atlantic coast of Halifax county, 50 miles east of the city of Halifax. It is a large, well sheltered harbour, about 5½ miles in length and 1¼ miles in width. At the head of the harbour, where there is a settlement of about 400, a large lumbering industry is carried on, the average cut annually being seven millions of feet. The settlement at Lower Ship Harbour is situated about 4 miles below the head, and is a thrifty and flourishing fishing and farming village of about 500 people.

During the fiscal year of 1905-6, the department expended the sum of $1,947.34 in the construction of a block and span wharf. The wharf is 80 feet long, 20 feet wide, and 20 feet high at the outer end, where at L.W.O.S.T. there is a depth of 11 feet of water. At the outer end of the work is an "L" 80 feet long by 20 wide. The approach consists of a stone bank 50 feet long, 20 feet wide, and of an average height of 8 feet. A small freight shed was built on the outer end of the wharf.

In the fiscal year 1913-14, the sum of $489.75 was expended in repairs to the wharf, consisting of new planking over an area of 60 by 20 feet and 30 by 20 feet, new stringers (6 pieces), 200 feet new capping, and 28 fenders, 26 feet long. The freight shed was moved to suit the convenience of shippers, and was covered with 3-ply felt and was painted. An approach of stone 20 by 10 by 6 feet was also built.

Work was begun in July, and was completed in September, 1913.

LOWER WEST PUBNICO.

Lower West Pubnico, Yarmouth county, is a thrifty and thickly populated fishing district, situated on the west side of Pubnico harbour, from 30 to 35 miles southeast from Yarmouth.

A full account of the expenditures covering the period from 1902 to 1912 may be found in the annual report for 1911-12.

In 1913-14, the department expended the sum of $779.93 in repairing and renewing the floor of the outer 100 feet of the length of the wharf.

MCARA'S BROOK.

McAra's brook, Antigonish county, is a small stream entering Northumberland strait 3 miles west of Arisaig.

In 1887, the sum of $299.78 was expended in making a boat landing by levelling off a portion of a large rock, and in building a cribwork approach 75 feet long.

This approach was destroyed in 1890 and rebuilt in 1891 at an expenditure of $590.28.

In 1911-12, the sum of $680.57 was expended in rebuilding the cribwork, in placing 6-inch hardwood sheathing on its seaward face, and in constructing a retaining wall and road, from the cribwork to the top of the bank.

During 1913-14, the sum of $1,483.97 was expended in levelling and removing rock, in building 45 feet of cribwork extension, and in securing material for the construction of a further concrete extension of 45 feet.

MCKAY'S POINT.

McKay's point (Judique), Inverness county, is on the east side of St. George's bay, 10 miles south of Port Hood, and 16 miles north of the northern entrance to the strait of Canso.

The breakwater at McKay's point, commenced in 1898 and completed in 1900, is 725 feet in length and 20 feet in width, with an "L" 20 by 20 feet at the outer end, of round timber, laid open-faced, with creosoted timber substructure, close-fendered around the outer end and "L" and protected on the seaward side by a talus of stone. The depth at extreme low water, at the outer end, is 6 feet.

Spring tides rise 4½ feet.

During the fiscal year 1908-9, the sum of $1,358.99 was expended in cutting down to low water and reconstructing the outer block, and in placing quarried stone in the talus, on the seaward side over a distance of 100 feet from the "L" inwards.

During the fiscal year 1910-11, the sum of $1,226.59 was expended in constructing a road, 1,600 feet long, between the breakwater and the public road.

During 1913-14, the sum of $98.50 was expended in renewing the covering where necessary, and in repairs to the timber-break on the eastern side of the work.

MCNAIR'S COVE.

McNair's cove, Antigonish county, is situated on the west side of St. George's bay, 2 miles south of cape George.

In 1872-3-4, a breakwater was built on the north side of the cove, 400 feet long and 20 feet wide. In 1879, most of this was carried away.

In 1883, 70 feet of the shore end was rebuilt and, in 1884, this work was extended 94 feet, but this extension was carried away in the spring of 1885.

In 1886-7-8, the bottom of damaged work was dredged, and a new work, 169 feet long, 32 feet wide on top, with a sloping face on seaward side of 8 feet wide and sloping 1 to 1, was constructed, making the total length of the breakwater 330 feet to a depth of 12 feet at L.W.S. at the outer end.

The work previous to 1888 was entirely of native timber, and had been weakened by the teredo.

In the years 1890 to 1894, the outer end and the faces for 20 feet in, were protected by creosoted close-piling, and the seaward face by a talus of quarried stone.

In the years 1897 to 1901, the sloping face was reconstructed from low water, and close-fendered with hardwood timber, and the talus was raised to the top of the fendering.

In 1901-2-3, the inner portion of the work, which originally was 20 feet wide, was reconstructed and widened to 30 feet for a distance of 120 feet.

In 1904-5, a block 80 feet long, 32 feet wide, was built across the outer end to protect the old work and to form an "L" on the western side; this block has creosoted timber to half tide, is full ballasted and close-sheathed on all outer faces.

In 1908-9, the top of the end of the seaward side of the old work, 80 feet long and 16 feet wide, including the sloping face, was removed to 2 feet below low water and reconstructed with creosoted timber to half tide, the new face close-sheathed and the stone talus in front of it raised to H.W.S.

In 1909-10, the inner face for 120 feet in from the "L" was repaired, and part of the material required for a 40- by 25-foot proposed extension to the "L" was purchased.

In 1911-12, the sum of $1,912.86 was expended in reconstructing 125 feet of the seaward face of the work and in procuring additional ballast and timber for proposed "L" extension.

In 1912-13, the sum of $1,302.06 was expended in the construction of a timber-break on the seaward side, 198 feet long, 10 feet wide, and 5 feet high, and a brush and stone beach protection work, with cribwork block at the outer end, to divert a stream on the eastern side of the breakwater, and in renewing some sheathing at the outer end of work.

During 1913-14, the sum of $200 was expended in reballasting a portion of the structure and renewing some fenders, sheathing, and covering.

MABOU HARBOUR.

Mabou harbour, Inverness county, is on the west side of Cape Breton island, 6 miles northeast from Port Hood.

The entrance was formerly at the southern extremity of a range of hills, and by an intricate channel, obstructed by a bar over which there was a depth of only 4 feet at extreme low water.

The opening of a new channel through the sand hills, at their northern extremity, was undertaken in 1872. A pier, 835 feet in length on the southern side of the new channel, was completed in 1876, and the same year, the old channel was closed. Expenditures were made nearly every year from 1876 to 1899 in dredging, in repairs to the piers, the construction of brush and stone works on the southern side, and of protection work on the northern side of the channel.

On the completion of the work undertaken in 1908-9, the works included: On the south side, the remains of a pier 835 feet in length and 20 feet in width, founded in about 12 feet at extreme low water, sloping from about 10 feet below extreme low water at the face to 2 feet above extreme low water at the back.

A brush and stone work, of various widths, extending outwards from the outer end of the pier about 1,600 feet, the inner end of which was 8 feet above the outer end, 5 feet below low water.

Brush and stone work at the back of the pier, 800 feet in length, 10 feet to 12 feet in width on top, and 8 feet in average height.

Brush and stone work 330 feet in length, from 1 to 5 feet above high water, closing the former entrance.

On the north side, 5 piles and brush groynes, four of which are from 75 to 85 feet in length, and one 45 feet.

In 1903, the minimum depth at extreme low water over the bar, about 600 feet outwards, from the head of the pier, was 6 feet 3 inches. In July, 1906, the depth over the bar was increased to 16 feet according to reports on dredging in 1906-7. This depth had decreased to 13 feet in November, 1907, and 9 feet in July, 1908.

During the year 1910-11, the brush and stone work, which extends from the outer end of the pier, was raised over a distance of 370 feet from its inner end, and during 1911-12, the sum of $1,166.66 was expended by day labour in the extension of the work for a distance of 135 feet.

During the year ended March 31, 1913, the reconstruction of the breakwater on the southern side of the entrance, commenced during 1910-11 and continued during 1911-12, was continued, and the sum of $1,999.85 was expended by day labour in its extension.

The new work consists of a brush and stone core up to high water springs, 12 feet wide on top, with sides sloping one to two, and a talus and covering of heavy quarried stone, 9 feet wide at a height of 3½ feet above high water springs, with sides sloping 2 to 1, and top rounded off to a height of 4½ feet above high water springs.

During the year 1913-14, the sum of $399.94 was expended in repairs to the groynes or jetties on the northern side of the entrance, by the renewal of piles, brush, and stone, where they had been damaged by ice.

MABOU BRIDGE.

Dredging.

Mabou village, Inverness county, is on the northern side of the Mabou river, where it is crossed by a highway bridge at the head of navigation, about 5 miles from its entrance into the gulf of St. Lawrence, at a point about 10 miles to the northward of Port Hood, the shire-town of the county.

At the head of navigation and immediately below the highway bridge, the department constructed a small wharf to accommodate local traffic, and for a landing place for small coasting steamers, which ply along these shores during the season.

In order to facilitate the turning of vessels and steamers in front of the wharf, during 1912-13 an arrangement was entered into with the Atlantic Dredging Co., Ltd., of Louisburg, to dredge a basin 150 feet wide and 500 feet long, to a depth of 10 feet at low water; and during the season, the dredge *Pepperell* accomplished the work by the removal of 14,400 cubic yards, scow measure, of mud, at the rate of 30 cents per cubic yard, involving an expenditure of $4,320.

As the channel of the river immediately below the basin was not wide enough to permit the passing, during low water, of two small vessels, coming from opposite directions, it was decided to widen the channel to 50 feet and to a depth of 10 feet at low water, over a distance averaging about 2,000 feet.

The Atlantic Dredging Company's dredge *Pepperell* commenced operations on July 15, 1913, and continued until July 29, when the work was completed, and during that period removed 9,934 cubic yards, scow measure, of mud, which, at the rate of 30 cents per cubic yard, cost $2,880.

The actual amount of material removed during 1913-14, is 8,690 cubic yards in place, and the expansion was 14.30 per cent.

MAITLAND.

Maitland, Hants county, has a population of about 1,500, and is situated at the entrance to the Shubenacadie river, which empties into the Basin of Minas, a large estuary of the Bay of Fundy.

To facilitate the crossing of the river, the department expended, during the year 1897-8, the sum of $996.76 in the construction of a ferry wharf of cribwork, 170 feet long and 20 feet wide. In 1898-9, the sum of $202.45 was expended in extending and finishing this work.

Between the years 1873 and 1876, the department spent $6,342 in the construction of a public wharf, and since that date an additional sum of $2,142.76 has been expended

in repairs to this work. During the year 1911-12, the sum of $142.11 was expended in the purchase of planking and material for much needed repairs to the top of the wharf. In the year 1912-13, the sum of $499.45 was expended; $77.20 of this amount was for repairs made with the material procured during 1911-12, and $422.25 was spent in procuring further material for repairs to be made in 1913-14.

In the fiscal year 1913-14, the sum of $491.42 was expended in completing repairs to the public wharf; 3,500 feet of new planking was placed; 150 ballast poles were laid, with 60 tons of ballast; five new fenders, guard-timbers and three new ladders were placed; new crane was supplied, and the approach to the wharf was repaired where it had been broken by an unusually high tide.

Work begun in October and completed December, 1913.

Half a mile distant from this work, at a small village called Maitland Ferry Landing, in the year 1913-14, the department expended the sum of $1,408.42 in the partial construction of a ferry wharf. A length 100 by 30 feet in width was built, 18 feet of this distance is 16 feet high; at the outer end the slope is 4 feet high and 12 feet wide. The wharf is of pilework covered with 3-inch plank, and has an approach 78 feet in length from the public highway to the structure. The work has been secured for the winter, and will be completed under the 1914-15 appropriation. The completed work will measure 100 feet in length by 30 in width, and out of this will be a 12-foot slip to give protection to teams and automobiles using the ferry.

The work was begun in August and suspended in October, 1913.

MALIGNANT COVE.

Malignant cove, Antigonish county, is on the southeastern shore of Northumberland strait, 10 miles southwest of Cape George.

In the bight of the cove, separated from the strait by a gravel beach from 100 to 200 feet wide at high water, and at the crest about 4½ feet above that level, lies a pond, fed by a small stream; a shifting channel connects this pond with the sea.

In 1900-1-2, a channel 30 feet wide at the bottom, 2 feet below low water, was cut through the beach, and cribwork piers on each side of this opening, 60 feet apart and extending 248 feet inward, through the beach, and 90 feet outward to 7 feet at L.W.S., were constructed. These piers were founded at low water; the inner piers are 10 feet wide on top, the outer piers are 16 feet wide for 60 feet, and 28 feet wide for 30 feet. The piers are of round native timber cribwork, fully ballasted, and their outer ends and channel faces are close-sheathed with 6-inch hardwood plank.

In 1902-3-4, the western pier was extended 60 feet inward with a crib 10 feet wide on top, to prevent the re-opening of an old channel, and a cribwork, 109 feet long and 18 feet wide, was constructed along the crest of the beach to the eastward, to prevent the sea from going over the beach.

The teredo damaged the outer end of the piers and, in 1904-5, those ends were protected temporarily with native hardwood piling, and during 1905-6-7, the outer ends of the piers and sides, for 30 feet in from the outer ends, were close-piled with creosoted timber.

In 1908-09, the sum of $3,765.63 was expended in purchasing creosoted timber for the construction of blocks 30 feet by 24 feet, to strengthen the outer ends of the piers, which were becoming weakened.

In 1910-11, the sum of $1,057.44 was expended in closing a breach in the beach, and removing sand from the channel.

In 1911-12, no expenditure was made. During this year, very heavy gales destroyed the outer portion of the eastern pier and carried sand and gravel over the inner portion filling the channel to the full height of the beach, thus causing the opening of a new channel on the western side of the west pier. This new channel caused the undermining of the west pier.

During the fiscal year 1913-14, the sum of $4,799.86 was expended in rebuilding, above L.W.S., a portion of the wrecked eastern pier, 38 feet by 18 feet by 10 feet average height, and in the partial construction of an extension of this pier 75 feet in line of work, 25 feet 4 inches wide, extending to a depth of 11 feet 6 inches L.W.S. A further expenditure of $450 for the completion of this work, to be charged against the appropriation for 1914-15, was authorized by letter of November 11, 1913. Work to the extent of $466.35 was done under this authority.

MARBLE MOUNTAIN.

Marble Mountain, Inverness county, is a settlement on the northern side of West bay, an arm of the Great Bras d'Or lake, about 14 miles to the eastward of the head of the bay.

The place was of very little importance until a few years ago, when extensive limestone quarries were bought by the Dominion Iron and Steel Company, who employ a large number of men and ship the output of the quarries to Sydney to be used in connection with their smelting works.

During 1906-7-8, a block and span wharf, extending to 15 feet at low water, 185 feet in length and 20 feet wide, with an "L" on the northern side of the outer end, was constructed by the department.

During 1909-10, the sum of $834.47 was expended in the construction of a road some 1,050 feet in length and 20 feet in width to connect the wharf with the public road, and in fencing it with posts and wire fencing.

During the fiscal year ended March 31, 1914, the sum of $231.70 was expended in repairs to the covering of the wharf.

MARGAREE ISLAND.

Margaree island, Inverness county, is situated on the Gulf of St. Lawrence, 2½ miles off the western coast of Cape Breton island and 27 miles northeast of Port Hood.

A wharf on the eastern side and near the southern extremity of the island, commenced in 1899-1900 and completed in 1901-2, is 100 feet in length and 20 feet in width, including 28 feet of cribwork, the southern side of which has been strengthened by the construction of a concrete wall 18 feet in length, 4 feet in width, and 7 feet in average height, and a cribwork block 72 feet in length. During 1909-10, the sum of $1,725.90 was expended in reconstructing the outer 40 feet of the work and in repairing and reballasting the adjoining cribwork.

During 1910-11, the sum of $245.54 was expended in paying outstanding accounts for materials obtained during 1909-10, and in repairing and reballasting the outer 40-foot block.

During the year 1911-12, the sum of $665.76 was expended in repairs to the outer end of the breakwater, which had been badly wrecked during a severe gale in the previous year; the repairs consisting of raising, reballasting, and covering the outer block and in placing a stone talus on the western side of the inner end of the work.

During 1912-13, the sum of $435.11 was expended in reballasting portions of the wharf and in close-sheathing the seaward face and end, and during 1913-14, the work was reballasted and heavy stone was placed on the western face of the inner end of the work to prevent undermining by the sea, and the expenditure incurred was $380.32.

MARGAREE RIVER.

Margaree river, Inverness county, is a large stream on the western side of Cape Breton island, flowing through extensive meadows to the gulf of St. Lawrence.

Works for the protection of intervale lands, undertaken in 1907-8, and continued during the two following years, include: upper and lower shear-dams in the Ross-

Ingraham settlement, Northeast Margaree, of piles and brush 15 feet in width, respectively, 420 feet in length and 6½ feet in height and 250 feet in length and 5 feet in height; works of brush and stone at Doyle's bridge and Deagle's intervale, 5 feet in height, respectively, 320 feet in length and 8 feet in width and 150 feet in length and 10 feet in width on top.

During 1909-10, the sum of $245.56 was expended in completing the lower dam in the Ross-Ingraham settlement.

During the year 1911-12, the sum of $1,999.97 was expended in the reconstruction of a portion of the upper shear-dam in the Ross-Ingraham settlement, and in its extension westward for a distance of 75 feet.

During the year 1913-14, the sum of $1,499.94 was expended as follows: $749.94 in the reconstruction of 100 lineal feet of pile, brush and stone work on the lower dam in the Ross-Ingraham settlement, and in repairs to the same, and $650 in the reconstruction of 90 lineal feet of pile, brush, and stone on the upper dam in the same settlement, and in making repairs.

MARGARETSVILLE.

Margaretsville, Annapolis county, is the most important village on the south shore of the Bay of Fundy, between Digby Gut and Scott's bay; it is 42 miles northeast from the former, 36 miles southwest from the latter, and 9 miles north of Middleton, an important station on the Dominion Atlantic railway. It has a population of 500, engaged in fishing and farming.

A pier was begun here in 1837 by the Provincial Government. It was taken over by the Public Works Department in 1871, since which time it has had frequent repairs, renewals, and extensions, a full history of which will be found in the departmental report for 1912-13.

In 1913-14, the sum of $299.99 was expended in repairing and renewing the floor of the east breakwater, also the sum of $100 was extended in effecting similar repairs to the upper part of the main breakwater.

MARION BRIDGE.

Marion bridge, Cape Breton county, spans the Mira river, about 12 miles above its entrance into Mira bay on the eastern coast of Cape Breton island.

The river is navigable, and during the summer season small steamers are engaged in passenger and freight traffic, the landing being effected at small and inconvenient wharfs near the Albert and Marion bridge, or by boats.

In order to facilitate the landing for freight and passengers at Marion bridge, during the year 1913-14 the sum of $1,213.95 was expended by the department in the construction of a pile-wharf, 25 by 40 feet, with a pile approach thereto, 20 by 30 feet, and in the construction of a warehouse 12 by 16 feet, built at the back of the wharf on a separate pile foundation.

MATTHEWS LAKE.

Matthews lake, Shelbourne county, is a body of water situated at the extreme end of Black point, and running inland a distance of 3½ miles. It has an average width of ¾ of a mile. Black Point is 3 miles due east of Lockeport. This lake is separated from the sea by a long shingle beach, through which, at its southern extremity, the proposed channel was required. For a number of years, there was a natural channel through which smelts, trout, alewives, eels, and black bass in large quantities entered this lake, which was used as a spawning ground. About thirteen years ago, this entrance became filled up through the action of the sea. For several years, the residents

of that locality, at their own expense, re-opened this channel, only to find that in the early spring it would again fill up.

Last year, the department expended $1,882.92 in opening up a channel and building protection walls to prevent it from filling in. The channel is 39 feet in width and runs from the shore line of the lake to L.W.O.S.T., a distance in the centre of 140 feet. Cribwork walls were built along each side of the channel, the one on the northern side being 120 feet in length, with a turn 30 feet long, and on the southern side, 170 feet in length with a turn likewise 30 feet in length. The channel was excavated to a depth of 4 feet below the surface, being 15 feet wide on the bottom, 27 feet wide on top, with a 6-foot berm on either side between the top edge of the channel and the cribwork. The cribwork is from 6 to 8 feet in height, is continuous, of the usual round-log, stonefilled nature, fendered on both sides. Work was commenced on July 14, and completed on November 21, 1913. Spring tides rise 7 feet; neap, 4½ feet.

METEGHAN.

Meteghan, Digby county, is situated on the south side of St. Mary's bay, Bay of Fundy, 25 miles north of Yarmouth, 20 miles south of Weymouth, 2½ miles south of Meteghan river, and 40 miles south of Digby, the county town.

Next to Digby and Yarmouth, Meteghan is the most important settlement on the bay shore, having a population of 1,000, engaged in farming, fishing, lumbering, and general trade. The harbour works consists of a breakwater and a landing pier, both of native timber cribwork, and both built between 1837 and 1860 by the Provincial Government and the inhabitants. The pier is 200 feet long and 30 to 40 feet wide. The breakwater is 925 feet, with an "L" of 85 feet at the outer end. Since 1875, numerous expenditures were made by the department in repairs and renewals, of which an account will be found in the departmental report for 1912-13

In 1913-14, the sum of $2,000 was expended in taking down and rebuilding part of the seaward face of the outer end of the stem of the breakwater, 49 feet long, 24 feet high, and 16 feet wide. The upper part of the "L" of the breakwater was partially renewed.

METEGHAN RIVER.

Meteghan river, Digby county, empties into the Bay of Fundy near the lower end of St. Mary's bay, almost directly opposite Grand Passage. The village near the mouth of the river is 20 miles south of Weymouth, 28 miles north of Yarmouth, and 2½ miles north of Meteghan. The population of the place is about 500, engaged in fishing, farming, and lumbering. The works, which were built before Confederation, presumably at the joint expense of the inhabitants and the Provincial Government, consist of two breakwaters, one on either side of the river mouth, enclosing an area of about 3 acres, in which, at H.W.O.S.T., is a depth of 10 to 15 feet of water.

Since 1873, numerous expenditures were made by the department in repairs, extensions, and improvements, a full account of which will be found in the departmental reports for 1908-9, 1911-12, and 1912-13.

In 1913-14, the sum of $996.53 was expended in the renewal of the floor of the shore end of the breakwater for a length of 260 feet, for the full width of the work, and a further length of 100 feet for half the width of the work. The renewals comprise planking and stringers.

MIDDLE COUNTRY HARBOUR.

Country harbour, Guysboro county, is on the Atlantic coast of Nova Scotia, 36 miles westward from cape Canso. It has an excellent anchorage in 4½ fathoms, 4 miles inland, and is navigable 6½ miles for large vessels, and for small vessels to Narrows point, 8½ miles inland. Boats can ascend 2 miles farther to head of tide.

In 1907, a block and span wharf was built by contract, for $2,200. It is 139½ feet long, consisting of a stone abutment 21 feet wide; of three central blocks 22 feet 8 inches wide, and an outer block 22 feet in line of work by 32 feet 4 inches across the end, forming a 10-foot "L" on the southern side.

In 1908, a warehouse on a post foundation was built, the contract price being $500.

In 1913-14, the sum of $21 was expended in temporary repairs to the warehouse foundation.

MIDDLE RIVER (LOWER).

Middle river, Victoria county, is a large stream emptying into Indian bay, on the northern side of St. Patrick's channel, an arm of the Bras d'Or lakes.

About 5 miles above its mouth, the river flows through alluvial lands, easily acted upon by the strong currents, particularly during freshets and, by opening up new channels, caused great loss of valuable lands.

Since 1903, three shear-dams were constructed along the river at this point, for the purpose of straightening and confining the course of the river, and the works proved successful as far as they went. At the end of the year 1908-9, the lower dam was 1,042 feet, the middle 220 feet, and the upper dam 600 feet, in length. All these dams consist of pilework filled in solidly with brush and stone, laid in alternate layers, and protected on the channel face with close-sheathing.

During 1909-10, the sum of $1,100 was expended in constructing a low pile-brush and stone dam, 250 feet in length and 10 feet in width, in front of the deepest portion of the upper dam, to prevent undermining of the gravel bottom; and during 1911-12, the sum of $493.88 was expended in repairs to the low dam, constructed during 1909-10.

Out of the amount voted for repairs to shear-dams, during 1913-14, the sum of $2,346.34 was expended as follows: On the lower dam the sum of $1,199.21 in the partial reconstruction of 200 lineal feet of pile, brush, and stone work, leaving a portion of the brush and stone filling incompleted for the want of funds. On the upper dam, the sum of $1,147.13 in the reconstruction of 240 lineal feet of pile, brush, and stone protection to face of dam and in the renewal of 300 cubic yards of brush and stone in the dam itself.

MIDDLE RIVER (UPPER).

Upper Middle River, Victoria county, is a settlement on the Middle river, a large stream emptying into Indian bay, on the northern side of St. Patrick's channel, an arm of the Bras d'Or lakes, and is situated about 11 miles from and above the mouth of the river.

For the purpose of deflecting the course of the river, above the footbridge, where it threatened to leave the old and cut a new channel through valuable intervale lands, during 1907-8-9, the sum of $2,185.15 was expended in the construction of a shear dam, 400 feet in length, the upper 100 feet consisting of brush and stone and the lower 300 feet of three rows of pilework, 15 feet wide filled in solidly with brush and stone and sheathed on the channel face with plank driven into the bottom.

During 1909-10, the sum of $401.02 was expended in the construction of a short dam, above the old dam, to prevent the river from cutting in behind it. The new dam is 90 feet in length, of which the upper end, for a distance of 30 feet, is of brush and stone, and the lower 60 feet of pile-work, filled in with brush and stone.

During the year ended March 31, 1912, the sum of $409.95 was expended in the construction of an extension, 90 feet in length, to the upper dam, of piles, brush, and stone work.

The sum of $500.50 was expended during the year 1913-14, in protecting the river bank between the upper and lower dams with deposits of brush and stone and in refilling the top of both dams with brush and stone, of which, altogether, about 500 cubic yards were placed.

MILL COVE.

Mill Cove, Halifax county, is a small cove on the Dartmouth side of Halifax harbour, situated in the central part of the town, well sheltered, and a number of industries are located at this place.

Under contract with the Halifax Dredging Company, 28,568 cubic yards, scow measurement, of mud and boulders were removed, at a cost of 29 cents a yard, to obtain a depth of 18 feet. Work was done between August 19 and November 14, 1913. Total expenditure for the fiscal year was $8,284.86.

MILL CREEK.

Mill Creek, Kings county, is a small farming settlement of a couple of hundred people, situated on the eastern side of the Basin of Minas, 3 miles south of Blomidon, and 4 miles north of Kingsport, the terminus of a branch of the D. A. Ry.

About twenty years ago, the inhabitants began the construction of a small pile wharf, 160 feet long and from 20 to 25 feet wide, but funds gave out and the work was left unfinished. Between 1899 and 1911, the department made numerous small expenditures in repairs, renewals, and extensions, of which a full description will be found in the departmental reports for 1906-7, 1910-11, and 1912-13.

In 1913-14, the sum of $5,245.96 was expended. The work, which is satisfactorily completed, consists of the extension of the breakwater wharf, by the construction of a block of substantial round log cribwork of native timber, 92 feet long, 31 feet wide, and from 23 to 26 feet high. Some few repairs were also made; several hundred tons of ballast were put in, new stringers on 42 feet in length of the old work, and about 600 feet b.m. of covering have been placed. The work has been well and cheaply done.

MIRA FERRY.

Mira Ferry, at Albert Bridge, Cape Breton county, is situated on the Mira river about 5 miles from Mira gut at its mouth, where there is a station of the Sydney and Louisbourg railway, and is distant about 12 miles from the city of Sydney. There are several steamers engaged in the passenger and freight traffic, and passengers getting off at Albert Bridge are landed at an old pier out on the main river where the landing is both difficult and dangerous.

In order to facilitate the landing of freight and passengers, the sum of $1,000 was voted for expenditure during 1913-14, in the construction of a native-timber wharf in Burke's cove, where there is no danger of running ice, and where a free site and right of way thereto has been offered to the Crown by the Presbyterian Church.

Instructions to proceed with the construction of the proposed work by day labour, were received on June 13, 1913, but it was too late in the season to procure the necessary materials and start the work. Out of the amount voted, the sum of $476.22 only was expended during the fiscal year in procuring the necessary materials for the construction of the wharf.

The proposed wharf is to be a block and span structure, 100 feet in length and 16 feet in width, with an outer block 16 by 30 feet, extending to 11 feet at low water.

MOOSE HARBOUR.

Moose harbour, Shelburne county, is situated about 3½ miles west of Liverpool town. It is a small boat harbour, where the department constructed a breakwater at a cost of about $4,500 in the year 1908-9. This breakwater is located on a jutted ledge of rock on the seaward side of the entrance to the harbour. A little farther out from the breakwater there was a ledge which was a menace to the navigation of the harbour.

In order to make the entrance navigable at all times, it was decided to remove this ledge, and during the last fiscal year the work was performed. There are about twenty small boats using this harbour as a fishing station. These boats are practically all motor-boats, with an average value of $400.

Work was commenced on May 27, and was completed on July 26, 1913. Owing to heavy undertow and sea during the latter part of May and June, the work was temporarily stopped on June 2 and resumed on July 2. There was removed 349·5 cubic yards of stone, practically all granite. At first the blasting operations on the ledge did not yield good results, so that a diver placed over 300 pounds of dynamite in one load along the seams of the ledge. This had the desired effect, with the result that fair progress was made. Spring tides rise here 7 feet; neap, 4½ feet.

MORDEN.

Morden, Kings county (formerly called French Cross), is a small fishing and farming village of about 150 people, situated on the south shore of the Bay of Fundy, 50 miles northwest of Digby Gut, 9 miles north from Aylesford station on the D.A.Ry. A breakwater was begun in 1846, at the joint expense of the inhabitants and the Provincial Government. It is 365 feet long, from 28 to 45 feet wide, and from 10 to 26 feet high. It has had many repairs, renewals, and extensions, complete details of which will be found in the departmental reports for 1904-5, 1911-12, and 1912-13.

In 1913-14, the sum of $999.27 was expended on the construction of two pieces of cribwork on the west or seaward side of the shore end of the breakwater, one piece, 50 feet long, 11 feet wide, and from 12 to 16 feet high, adjoining outwards the piece 42 feet long, built in 1912. The other piece, built this year, is 40 feet long, 11 feet wide, and 11 feet deep, shorewards from the piece built last year. Miscellaneous repairs were also made to the breakwater.

MUSHABOON.

Mushaboon, Halifax county, is situated to the westward of Sheet harbour, near its entrance. It has a well-sheltered harbour, well adapted to the fishing industry, and has a population of about 150 engaged almost wholly in fishing. Thirty well equipped boats are used in the industry, and the annual catch amounts to about 500 quintals of cod and 2,000 barrels of herring, the value of which is from $10,000 to $12,000.

In the year 1912-13, the sum of $2,000 was voted for the construction of a small wharf, but owing to the difficulty in procuring material this work had not been completed. The amount of $806.75 was expended in the construction of a stone approach and the building of one crib.

In the year 1913-14, this work was completed by the addition of two cribs measuring 20 by 20 feet each, having an average height of 22 feet, and decking being placed over the entire work, which has a total length of 140 feet, including approach, a width of 20 feet, and average height of 19 feet. Amount expended, 1913-14, was $1,432.43.

Work was begun in August and completed October 14, 1913.

MUSQUODOBOIT HARBOUR.

Musquodoboit Harbour, Halifax county, is an important post village and port of entry, situated 28 miles east of Halifax harbour. It contains three stores, three hotels, four saw-mills, telephone and telegraph offices, and has a population of about 500 engaged chiefly in farming and lumbering. The annual shipment of lumber is about eleven million feet. There is no rail communication, and the business of the village is done mostly by packet from Halifax, all supplies and merchandise being handled in that way.

In the fiscal year 1912-13, the sum of $1,404.40 was expended in the partial construction of a cribwork wharf. A length of 60 feet with 50-foot face and height of 4 feet to 16 feet was built, and a shed 18 by 24 feet for the convenience of shippers, was erected. The amount of $127.74 was expended in the purchase of timber for 1913-14 work.

In the fiscal year 1913-14, the sum of $402.74 was expended in adding a crib addition to the work begun last year; the addition measures 20 by 40 feet and is 20 feet in height; 50 yards of fill was provided, and a crane was placed.

Work was begun in November, 1913, and was completed March 25, 1914.

NECUM TEUCH.

Necum Teuch, Halifax county, is situated on the east side of Necum Teuch bay at the mouth of Mosers river. It is 68 miles in an air line from Halifax (E.N.E.), and 6 miles from Salmon river. The population of the place is about 400, engaged in farming and lumbering.

In the fiscal years 1902-3-4, the sum of $5,211.58 was expended in the construction of a wharf. The work is 394 feet long and 20 feet wide, with an "L" on the outer end, giving a face length of 40 feet and a width of 30 feet. There is a depth of 16 feet of water at H.W.O.S.T. In the fiscal year 1910-11, the sum of $396 was expended in covering the wharf for its entire length and width of 10 feet with 2-inch planking, and in taking down and rebuilding the outer face of the "L."

In the year 1912-13, the amount of $494.52 was expended in placing a number of fenders along the outer face of work and along the north side, and a group of fenders strongly bolted to the corners. The new portion of the work on the inside of the shed on the north side was raised and new guard timbers placed around the outer end of the wharf; a portion of the planking was replaced. In December, the approach had been damaged in severe storms of that month.

In the year 1913-14, the sum of $198.13 was expended in repairing the damage done by severe storms during the winter of 1913; the breakwater was rebuilt along the road for a length of 270 feet by an average height of 2 feet, and 125 yards of material was filled in to protect the road. The shed was also enlarged by a length of 4 feet. The work was begun in July and completed during August, 1913.

NEW CAMPBELLTON.

New Campbellton, Victoria county, is at the head of Kelley's cove, on the northern side of the Great Bras d'Or channel, about 1 mile from its entrance into the Atlantic ocean.

The cove is about half a mile in width at the mouth, and one-quarter of a mile in depth, and has a depth of water of about 20 feet at low water. It is sheltered from all winds excepting southwesterly, but as these blow down the Bras d'Or channel, they do not cause much inconvenience.

It is a port of call for the ss. *Marion* of the Bras d'Or Steam Navigation Co., which, during the season, plies daily between the Sydneys and Bras d'Or lake ports.

On September 15, 1905, a contract was entered into in the sum of $17,000 for the construction of a wharf at the end of an old coal shipping pier, to serve as a landing place as well as a ballast wharf, and for repairing and strengthening the old shipping pier, which was to serve as an approach to the wharf.

The work of construction was commenced early in June, 1906, and was completed on January 24, 1907.

After the completion of the contract, the sum of $150 was expended by day labour in placing an additional amount of ballast in the face-chambers of the cribwork extension.

The work done under contract included the reconstruction of the top of the old shipping pier; the construction of a native round-timber cribwork retaining wall, 165 feet long and 12 feet wide on top, along the southern side of the old pier; a creosoted timber pile extension at outer end of old work, 61 feet in length and averaging 22 feet in width, and of a cribwork extension, with creosoted timber substructure to serve as a ballast as well as a public wharf, forming an "L" on the southern side of the pile extension, 200 feet long and 24 feet wide.

During 1910-11, the sum of $151.65 was expended in the construction of a freight shed, 12 by 20 feet, on the outer end of the wharf, and a further sum of $299.89 was expended in close-piling with native timber-piles, the outer end of the northern face of the old shipping pier, to prevent the old ballast from falling out and shoaling the water alongside.

During the year 1913-14, the sum of $102.40 was expended in temporary repairs to the covering, which was so bad in places that teams could not be taken to the end of the wharf where steamers land.

NEWELLTON.

Newellton, Shelburne county, is situated about 2 miles northwest of Clarke's Harbour, having a population of about 350, all of whom are practically dependent upon the lobster fishing for a livelihood. In the year 1900, a wharf was constructed at this place, and since that time it has been extended until it is now 288 feet in length, the first 108 feet of which consists of a stone approach, the next 50 feet of two 20-foot long cribs separate by a span 10 feet in length, and the outside 130 feet resting on pile trestle bents, separate 10 feet apart, centre to centre of pile heads. The whole work is 20 feet in width, with the exception of the last 60 feet in length, which is 40 feet. The outside and end are protected by close piling. During the past fiscal year, the sum of $135.50 was expended in constructing a freight shed; it is 14 feet in length and 8 feet in width, having 10-foot posts. This freight shed was constructed for the purpose of accommodating perishable freight, which is landed here from time to time. Spring tides rise 10 feet; neap, 7 feet.

This work was commenced on February 3, and completed on March 17, 1914.

NOEL.

Noel, Hants county, has a population of about 309 engaged chiefly in farming and fishing. It is 13 miles west of Maitland and 32 miles west of Shubenacadie, the nearest station on the Intercolonial railway. It has plaster quarries in the near vicinity, and plaster is shipped to the United States each year.

In 1889, a public wharf was built by the department. It consists, first, of 35 feet in length of brush and stone causeway approach; next, a 30-foot block of crib-work, close-faced and filled to the top with gravel and stone; then 203 feet in length of pile-work, 25 feet wide on top, with a double row of close-piling on the exposed northern side, and an "L" at the outer end with a face length of 62 feet. Along the outer face of the "L" the work is 24 feet high, having a depth of water at H.W.O.S.T. of 21 feet.

In 1901, the sum of $60.15 was expended in renewing the planking at the outer end of the wharf. In 1904-5, the sum of $1,000 was expended in repairs and renewals to the top of the wharf. In 1908-9, the sum of $1,977.05 was expended in building an extension to the pile wharf 60 feet long, 40 feet wide along the west side and 60 feet long and 10 feet wide on the northern face or outer end of the work. During 1909-10, the sum of $274.15 was expended in completing the close-piling and in renewing some pieces of flooring.

In 1913-14, the sum of $2,500 was expended in the partial construction of an extension to the pile-wharf, 100 feet long, 35 feet wide, and from 16 to 18 feet high.

Miscellaneous repairs were also made to the old portion of the work, consisting of new piles and stringers and new planking over the entire area.

Work begun in July, suspended December 1, 1914.

NORTH GUT.

North Gut, St. Ann's, Victoria county, is the local name of the northwestern arm of the head of St. Ann's harbour, a fine basin 7 miles in length and 2 miles in width, situated at the head of St. Ann's bay, on the eastern coast of the island of Cape Breton.

On September 29, 1904, a contract was entered into for the construction of a wharf at Morrison's point, in the sum of $1,850, and the work was completed on May 31, 1905.

The wharf is a block and span structure, 122½ feet long and 20 feet wide, with an "L" at the outer end, 20 by 20 feet, extending to 7¾ feet at low water; it is constructed entirely of round native timber, laid open-faced, properly ballasted and fendered.

During 1913-14, the sum of $149.48 was expended in temporary repairs to the covering of the wharf, by replacing some 6,000 feet b.m. of 3-inch plank covering.

NORTH INGONISH.

Ingonish (North), Victoria county, is on the northeast coast of Cape Breton island, about midway between Sydney harbour and cape North. It is separated from the south bay of Ingonish by a narrow, rocky, and precipitous peninsula, over 2 miles in length.

On December 6, 1899, a contract was entered into for the construction of a breakwater off Archibald's point, on the north side of the bay, for the purpose of forming a harbour of refuge for fishing boats, and the work was completed on December 20, 1900.

The breakwater is 484 feet long, with an "L" 77½ feet long, and from 18, at the inner, to 24 feet wide at the outer end, and is constructed of squared timber, laid close-faced, with creosoted timber substructure, fully ballasted and fendered, sheathed on the seaward face and end, and protected on the seaward side by a heavy stone talus.

During 1901-2-3, the stone talus, which was somewhat flattened out by the action of the sea, was raised at a cost of $2,466.88.

During the fiscal year ended June 30, 1904, the sum of $279.06 was expended in the removal, by submarine blasting, of several large boulders near the outer end of the breakwater, which were a source of danger to vessels or steamers approaching or leaving the breakwater.

The depth of water along the face of the "L" at low water springs is 11 feet.

Spring tides rise 4 feet.

During 1910-11, the sum of $173.63 was expended in the construction of a freight shed, 12 by 20 feet, on a separate cribwork foundation at inner end of the breakwater.

During the year 1913-14, the sum of $699.42 was expended in the renewal of portions of the covering, cap-timbers and upper fenders, aggregating some 32,000 feet b.m. of spruce and hardwood timber.

NORTH SYDNEY.

Dredging.

North Sydney, Cape Breton county, is an important town and seaport, with a population of about 6,000, situated on the northern side of Sydney harbour, and is one of the eastern terminals of the Intercolonial railway.

During the year ended March 31, 1914, some dredging was performed by the Government dredge *Cape Breton* off the ballast grounds, and between the wharfs owned by Messrs. Salter and Moulton, on the western end of the town, as follows: During October 23 and 24, 1913, the remains of an old wreck, lying off the western side of the ballast grounds in about 8 feet at low water, were removed, together with a lot of material which had accumulated around it, down to the original bottom. The amount of material removed consisted of 275 cubic yards, scow measure, of sand, gravel, and stone, besides several sections of the old hull, which were towed ashore. From November 28 to December 1, 1914, both days inclusive, the dredge removed some 1,175 cubic yards scow measure of gravel and mud from the dock between Messrs. Salter's and Moulton's wharves, and overcast 275 cubic yards of material at the inner end of the dock.

NYANZA.

Nyanza, Victoria county, is a small settlement, 7 miles to the westward of the town of Baddeck, and is at the head of Indian bay on the northern side of St. Patrick's channel, an arm of the Bras d'Or lakes.

It is a port of call for the steamers of the Bras d'Or Steamship Co., plying between Sydney and Whycocomagh during the season, and is the shipping place for a large and important agricultural district.

The wharf constructed by the department during 1893-4-5, and widened during 1901-2, is 136 feet in length and 40 feet in width. It extended to 12 feet at low water, and it was constructed of brush, with sides battering 1 in 6, covered with gravel and fendered with hardwood piles.

During 1902-3, a warehouse, 30 by 18 feet, was constructed on the western side of the inner end of the wharf, and during 1905-6, a parcel of land, containing about half an acre, was purchased for the purpose of forming a yard for cattle, sheep, etc., while waiting for shipment.

Of the amount voted for 1910-11, the sum of $2,367.04 was expended in repairs to the outer end of wharf, and in the construction of a creosoted timber pile extension, 50 feet long and 40 feet wide, and in completing the same, excepting the placing of covering, cap-timbers and fender piles.

The sum of $600 was voted for this work during 1911-12, and out of this amount, the sum of $544.62 was expended in completing the extension commenced during 1910-11, and in reconstructing 20 feet of the top of the outer end of the old work, with round timber cribwork.

During 1913-14, the sum of $364.40 was expended in completing repairs to the outer end of the old work commenced during 1911-12, consisting of cribwork, 10 feet wide on each side of the old work from low water up, and in levelling up the space between them with clay.

OGDEN'S POND.

Ogden's pond, Antigonish county, is on the western shore of St. George's bay, about 13 miles south from Cape George, and 1½ miles in a northeasterly direction from the entrance to Antigonish harbour. It is a small sheet of water, about 100 acres in extent, separated from the bay by a sand beach of from 130 to 250 feet in width.

For the purpose of rendering the pond, which has a depth of over 10 feet at low water, accessible to boats and small craft, during 1900-1-2, a channel 30 feet wide and 285 feet long was cut through the beach and the flat inside, down to a depth of about 1½ feet below low water, and a channel protection work, 350 feet in length, was constructed on the northern side of the entrance. The work consisted of a brush and stone embankment, 70 feet long and 8 feet wide on top, with sides sloping half in one; a pile, brush, and stone work, 260 feet long and 10 feet wide, close-sheathed on

the seaward face, and a round-timber cribwork block at the outer end, 20 by 20 feet, with creosoted timber substructure and close-sheathed on all outer faces.

During the year 1902-3 the sum of $640.87 was expended in repairing and levelling up the outer block, which had settled by undermining of the sandy bottom, and in protecting its base with brush and stone; also in replacing stone in the pile, brush, and stone work, which, being uncovered, had been washed out by the sea.

In 1903-4, the sum of $1,449.87 was expended in replacing the pilework damaged in 1902, for a distance of 130 feet, with cribwork; in refilling the balance of the pilework with brush and stone, and in placing a covering over all; further, a quantity of ballast, about 160 cubic yards, was delivered to be used in the protection to the channel through the flat, inside of the beach.

In 1904-5, the sum of $499.87 was expended in constructing a pile, brush, and stone work 100 feet in length, on the south side, and a brush and stone dam, 80 feet in length, on the north side of the channel through the flat, inside the beach, for the purpose of confining the tidal streams, and the work done proved very satisfactory.

In 1905-6, the sum of $799.76 was expended in the construction of additions to the dams inside of the beach, to confine the channel through the flats. The extensions are 330 feet long on the northern and 270 feet on the southern side, 7 feet wide on top and 6 feet high, and were constructed with brush and stone, laid in alternate layers.

In 1910-11, the sum of $349.99 was expended in reballasting the channel protection piers, covering the same, repairing brush and stone channel protection work on the inside of the harbour, and in deepening the channel by hand, and horse and scraper dredging.

In 1911-12, the sum of $170.55 was expended in reballasting the outer block and in repairing the pile, brush, and stone work.

During the fiscal year 1913-14, the sum of $711.81 was expended in building a brush and stone protection work 230 feet in length with a crib-head 13 by 13 feet on the outer southern side of the entrance, and in re-opening the channel and repairing and strengthening the protection work on the outer northern side.

OGILVIES.

Ogilvies, Kings county, is situated on the south shore of the Bay of Fundy, 55 miles east of Digby Gut and 11 miles north of Aylesford on the D.A.Ry. The breakwater was built in 1854 by the inhabitants, aided by the Provincial Government. It was 27 feet long, 38 feet wide on top, and about 27 feet high at the outer end, built of ordinary cribwork. Between 1854 and 1913, numerous expenditures were made by the department in repairs and renewals, of which a full account will be found in the departmental report for 1905-6 and 1912-13.

In 1913-14, the department entered into a contract with E. R. Reid, for the rebuilding of the outer end of the breakwater. The work which was satisfactorily completed on the 15th of December, 1913, is 120 feet long, 30 feet wide, and from 15 to 27 feet high, built of round-log cribwork, filled with stone, close-sheathed, and provided with a break on the seaward side. The contract price of the work was $6,300.

OSBORNES.

Osbornes (Cow bay), Halifax county. Of the 1908-9 appropriation of $4,000 for Cow bay, one-half, $2,000, was diverted and authorized to be expended in the construction of a breakwater at Osbornes, on the northern side of Cow bay, about a mile from Cow Bay run, and the sum of $550.80 was expended in timber. The lateness of the season at which the division of the appropriation was authorized, prevented construc-

tion from being undertaken. During the year 1909-10, the sum of $1,193.55 was expended in constructing a breakwater. The work is of native timber cribwork, 20 feet wide, 100 feet long, 3 feet high at the inner end and 18 feet high at the outer end, where there is a depth of water of 6 feet at low tide. It is partially sheathed on the seaward side and outer end, and has a break 2½ feet high.

In the fiscal year 1913-14, the sum of $2,474.01, was expended in the purchase of timber in readiness for the construction of an extension to the breakwater under the 1914-15 appropriation.

Purchase of timber was made in March, 1914.

OSTREA LAKE.

Ostrea Lake, Halifax county, is a fishing district situated near the mouth of Musquodoboit harbour and 30 miles east of the city of Halifax.

In the fiscal year 1907-8, the sum of $1,521.33 was expended in extensions and improvements to the public wharf, the work done consisting of a block of cribwork 60 feet long, 50 feet wide and from 3 to 6 feet high, between the shore and a block built some years previous at the edge of the channel. A pile-work addition was also constructed, 50 feet long and 10 feet wide.

During the fiscal year 1910-11, the sum of $94.19 was expended in making repairs to the planking and guard timbers and the placing of seven new fender piles at the head of the wharf.

In the fiscal year 1913-14, the sum of $58.67 was expended in urgent repairs to the wharf; the work consisted of the placing of new fenders, planking and miscellaneous repairs.

Work done during March, 1914.

PARKER'S COVE.

Parker's cove, Annapolis county, is a small indentation in the southeast shore of the Bay of Fundy, 15 miles northwest of Digby Gut, and 7 miles north of Annapolis, the county town. The population of the settlement is about 250, engaged in fishing and farming.

In 1883-4, the department constructed a small crib-work breakwater, 200 feet long, 23½ feet to 26 feet wide on top, and at the outer end 16 feet high, where at high tide there was a depth of about 11 feet of water.

From 1900 to 1912, the department made numerous expenditures, of which a full account will be found in the reports for 1907-8 and 1911-12.

In 1913-14, the sum of $461.73 was expended in miscellaneous and urgent repairs to the breakwater. A number of pieces of flooring that had been broken by waves have been replaced, a few tons of ballast put in under the flooring, and some pieces of creosoted sheathing that had been torn off were replaced with hardwood.

PETIT DE GRAT.

Dredging.

Petit de Grat, Richmond county, is a settlement situated on both sides of Petit de Grat inlet, which divides Madame island from Petit de Grat island. The main entrance is at the southern end from the Atlantic; the northern entrance, from Rocky bay, is obstructed by outer and inner bars, through which passages for boats at ordinary low water were opened by the department.

The object to be obtained by dredging is the deepening of the main channel and the approaches to the wharves, to a depth of 13 feet at low water, to permit small vessels to approach and leave at all times of tide.

During 1909-10, Messrs. Beazley Bros., of Halifax, improved, by dredging, the approaches to Jeans, Duff's, and Comeau's wharves, removing some 10,945 cubic yards of mud and 45¾ cubic yards of rock.

On July 11, 1910, a contract was entered into with the W. J. Poupore Company, Ltd., of Montreal, to dredge 35,000 cubic yards, scow measure, at 55 cents per cubic yard. The contract expired on December 19, 1910, and as no work was done under this contract, it was extended to December 19, 1911.

On May 29, 1911, the dredge *Prince Guy* commenced operations and continued until July 12, removing 6,530 cubic yards of hard-pan and small boulders, but as the plant was found too light for the work required, the dredge was dismantled and another dredge, the *Pontiac*, was placed in commission to take her place. This dredge commenced operations on July 31, and continued until August 12, when she was burned and sank at her moorings. During this period, the dredge removed some 3,900 cubic yards of hard-pan.

On May 9, 1912, the extension of the contract with the W. J. Poupore Co., Ltd., was extended by an Order in Council and on October 11, the company's dredge, *King Edward*, resumed the work under contract, and continued until November 20, when the work under the original contract was completed. The material removed during 1912-13 consisted of 22,031 cubic yards, scow measure, of clay and small boulders, and of 281½ cubic yards of boulders containing 2 cubic yards and over.

On September 22, 1913, a contract was entered into with the Coastal Dredging and Construction Co., Ltd., for the removal of 22,400 cubic yards scow measure of clay and sand, at the rate of 54 cents per cubic yard, to complete the improvement of the approaches to Duff's, Comeau's, and Martell's wharves, to a depth of 13 feet at low water.

Dredging operations were commenced on November 29, 1913, and continued until January 12, 1914, when, owing to the formation of ice, they were suspended for the season. During that period, the approach to Comeau's wharf was completed, and the approach to Martell's wharf was about half done, and the quantities of material removed and the rates for the different class of work are as follows:—

9,583 cubic yards of clay and sand at 54 cents.....	$5,174 82
13 cubic yards of boulders, 2 yards and over at $5....	65 00
1,875 cubic yards of overcasting at 36 cents.....	675 00
Total	$5,914 82

PETITE RIVIÈRE.

Petite Rivière, Lunenburg county, is the centre of a thriving farming and lumbering district, situated about 21 miles from the town of Bridgewater, in a south-westerly direction. The village, which has a population of about 500, is situated near the mouth of a small river, from which it takes its name. The nearest railroad station is 6 miles distant, and the nearest harbour, La Have, 6 miles distant. A small harbour is formed by the channel of the river, which empties into a shallow bay through a sand beach.

From 1905 to the end of the fiscal year 1908, the department constructed a breakwater, 1,220 feet long; the first 900 feet being 16 feet wide, and the outer 320 feet being 20 feet wide. It is from 5 to 13 feet high, and rests on a mattress of brush and stone from 20 to 30 feet wide and about 2 feet in thickness. During the fiscal year 1911-12, the sum of $340.63 was expended in making necessary repairs to the work, which had settled owing to the scouring of the sand under this breakwater. In the fiscal year 1912-13, the sum of $2,385 was expended in raising the breakwater where it had settled in a number of places, and in making miscellaneous repairs.

In the fiscal year 1913-14, the sum of $2,499.98 was expended in completing repairs to the breakwater; a length of 500 feet, varying in width from 17 to 21 feet, was rebuilt, to an average depth of 3 feet. New fenders were placed and the work was reballasted.

Work was done between September 8, 1913, and January 10, 1914.

PICTOU ISLAND.

Pictou Island, Pictou county, is situated in the strait of Northumberland about 10 miles northeast of the entrance to Pictou harbour.

There were two wharves on the south side of the island; one near the west end, known, as the "west wharf", and one near the centre, known as the "east wharf".

The west wharf is 324 feet in length and 20 feet in width (with the exception of the inner 55 feet, which is only 12 feet in width), and has an "L" on the east side of the outer end, 60 by 30 feet. The depth at extreme low water at the outer end, originally 4 feet 6 inches, is now only 1 foot.

The east wharf, originally 328 feet in length and 20 feet in width, with a depth at extreme low water, at the outer end, of 4 feet 9 inches, was damaged in 1906, and has since been destroyed.

In 1910-11, the sum of $1,145.75 was expended in the removal of the top work of the west wharf, and the placing of about 400 cubic yards of ballast.

During 1913-14, the sum of $701.87 was expended in repairing the outer end of the west wharf, including the rebuilding of cribwork at the southwest corner, renewing some sheathing and covering and reballasting some empty face chambers.

PIPER'S COVE.

Piper's Cove, Cape Breton county, is on the northeastern end of the Great Bras d'Or lake, between the entrances to East bay and Barra strait, the latter connecting the Great with the Little Bras d'Or lake.

In 1910-11, the department expended the sum of $5,110.74 in procuring nearly all the materials required for the construction of a block and span wharf, 206 feet in length and 20 feet in width, with an "L" on the northern side of its outer end, 40 by 20 feet, and extending to 8 feet at low water, for a landing and to form a shelter for small boats.

During the year 1911-12, a road was constructed at a cost of $523.66 to connect the shore end with the public road, about 1,600 feet in length and 16 feet in width on top, including two small bridges and eight small culverts.

During the fiscal year ended March 31, 1913, the sum of $1,992.93 was expended in the construction of the wharf, excepting the outer block and "L", 20 by 60 feet, but the substructure of this was built on the shore and was ready to be launched in the spring. The substructure of all blocks is of creosoted timber.

During 1913-14, the sum of $1,996.81 was expended in the completion of the wharf and in the construction of a cribwork approach along the shore, 300 feet in length and 12 feet in width, averaging 3 feet in height.

PLEASANT BAY.

Pleasant Bay, Inverness county, is on the western coast of Cape Breton island, 24 miles north of Cheticamp and about midway between that place and cape St. Lawrence.

A contract was entered into on January 29, 1906, for the construction of a wharf for the sum of $7,500. The contract called for a continuous cribwork structure, 210

feet in length and from 16 to 20 feet in width, with an "L" at the outer end 20 by 20 feet, creosoted to half tide, fully ballasted and close-fendered on both sides and at the outer end.

During the year 1905-6, all the materials required in the construction of the wharf, with the exception of the ballast, were delivered. The contractor commenced the construction of the cribwork early in June, 1905, but up to the end of that month no work had been placed.

During the fiscal year ended March 31, 1907, the work under contract was completed, and extra work, costing $150, was performed. The extra work consisted in the construction of a bridge, on the right of way leading to the wharf, with brush and stone and frame work abutments, 12 feet long, 8 feet wide and 10 feet in height, placed 10 feet apart.

During 1912-13, the sum of $1,182.67 was expended in the renewal of top of bridge in the approach to wharf, the inner block of wharf was rebuilt, the hardwood fenders and sheathing around the outer end were renewed, steel plates were placed around the three outer corners, and the road approach to the wharf was repaired and improved

The sum of $250 was expended during 1913-14, in repairing the outer end of the wharf, which was badly damaged during the severe gale of December 30, 1912, and in raising and repairing the road approach which had been washed out during the gale.

PORT BECKERTON.

Port Beckerton, Guysborough county, is on the southern coast of Nova Scotia, midway between Indian and Country harbours, and 5½ miles from the entrance to either.

In 1904-5-6, the sum of $4,831.93 was expended in constructing a wharf, roadway, and warehouse.

The wharf is a block and span structure extending 190 feet to 12 feet at L.W.S., and consists of an inner block 40 by 20 feet, four intermediate blocks, 18 by 20 feet, and a head block 24 feet, in line of work, by 50 feet.

During 1913-14, the sum of $489.98 was expended in close-piling the seaward face of the two outer spans, in fully ballasting the outer bays of the head block, in renewing some fenders, caps, and covering, and in procuring material for a fence.

PORT CLYDE.

Port Clyde, Shelburne county, is situated at the mouth of the Clyde river, about 15 miles west-southwest of Shelburne. It is also located at the northern end of Cape Negro harbour. Port Clyde itself is a small village of about 400 people, settled along the western side of the harbour front for a distance of about 2½ miles. Two miles above it, is situated Clyde village, a farming settlement of about 300 people. The chief industries are lumbering and fishing. During the past three years, the Clyde River Pulp Company have been operating at Clyde, about 3 miles above the mouth of the river.

There are already two wharves at Port Clyde, but both are private, one being used entirely by the Pulp Company, by which it is leased, and the other by two lumber firms, so that the people in that vicinity had no opportunity to land supplies, and a public wharf was rendered necessary. During the past year, the amount of $3,699.78 was expended in the construction of a wharf; work was commenced on August 5, and closed on October 22, 1913.

The site chosen was at the end of a public road running from the post road, where an old wharf, constructed and owned by Mr. Fletcher McLarren, was located; this property was purchased for $400.

The wharf is 269 feet in length, consisting of a rock bank approach 114 feet in length, 24 feet in width on top, three cribs, each 20 feet long separate by two spans each 15 feet long, all of which is 20 feet wide, two more spans, one of 13 and the other

of 10 feet, connected with two other cribs each 20 feet long, the last 50 feet of the work being 50 feet wide, with a height at the outer end of 16 feet or 7 feet at L.W. O.S.T. The cribwork is of the usual kind, well ballasted, fendered, and fastened. Spring tides rise 8 feet; neap, 5½ feet.

PORT DUFFERIN.

Port Dufferin, Halifax county, formerly called Salmon River, is a thriving village of from 500 to 600 people, engaged in fishing, farming, and gold mining. It is situated at the mouth of the Salmon river, which empties into an inlet known as Beaver harbour, about 84 miles east of Halifax by high road, and about half-way between Halifax and the harbour of Canso.

In 1898-9, the sum of $1,646.69 was expended in constructing a public wharf. The completed wharf consists of a stone-and-earth embankment, 116 feet long and 28 feet wide, with an "L" on the outer end giving a face length of 56 feet. In 1905-6, the sum of $481.16 was expended in making repairs to the structure. In the fiscal year 1910-11, the sum of $1,233.39 was expended in rebuilding the old cribwork wharf in pile and timber trestle. The completed work is 120 feet long, 35 feet wide, with an "L" 35 by 45 feet. During the fiscal year 1911-12, the sum of $207.41 was expended in extending the earth and gravel approach.

During the fiscal year 1912-13, the sum of $2,938.03 was expended in the construction of 80 feet long by 25 feet wide; two cribs 20 by 25 feet each, from 10 to 15 feet in height; the cribs are placed 10 feet apart. Timber was purchased for the completion of the work, during the next fiscal year.

In the fiscal year 1913-14, the sum of $4,133.05 was expended in completing the wharf begun last year; work done during the season being 140 feet in length by 25 feet in width. The completed work has a stone and earth approach, is built of solid cribwork and measures 250 feet in length by 25 feet in width, and has an "L" 45 by 40 feet, average height 18 feet. Work began in July, and completed December 15, 1913.

PORT GREVILLE.

Port Greville, Cumberland county, is a village of about 400 people situated 12 miles west of Parrsboro. Important ship building and lumbering interests are located at this place, which interests are mainly dependent upon the security and facilities of the harbour, which is formed by a high gravel bar lying parallel to the shore, inside of which the river runs half mile before reaching L.W.O.S.T.

For the purpose of protecting the said harbour, the department, in 1874, constructed upon this gravel bar or beach a cribwork beach protection, 2,200 feet long, 10 feet wide on top, with an average height of 7 feet. This was rebuilt in 1902-3.

In the fiscal year 1886-7, the department constructed a breakwater off the eastern end of this protection, which was 250 feet in length, 21 feet in width on top, with an average height of 20 feet. It has a slope on the seaward end of half to one, whilst the seaward and outer faces are sheathed with 6-inch plank.

In the fiscal year 1905-6, this work was extended a further distance of 180 feet, being the same width as the former portion of the work, and having a height at its outer end of 36 feet, with the seaward and outer face both sheathed with 5-inch hewn timber.

During the fiscal year 1912-13, the sum of $4,828.73 was expended in partially constructing a wharf, which was situated on the opposite side of the harbour from the breakwater. During the present fiscal year, the sum of $1,235.36 was expended in completing this work. It was commenced August 8, and completed September 23, 1913.

This wharf is 120 feet wide, 96 feet long, and 18 feet high at the outer end; 70 feet of its length is of solid cribwork, filled with stone, the other 20 feet consists of trestle bents, the foundation being of mud sills. The entire wharf was covered with 3-inch plank; fenders and stringers necessary for the top of the wharf were purchased and put in place; about 200 tons of ballast were added, and the work completed. Spring tides rise 39 feet; neap, 33 feet.

PORT HAWKESBURY.

Port Hawkesbury, Inverness county, is on the eastern side of the strait of Canso, nearly opposite Port Mulgrave.

In 1902-3-4, a wharf known as the "Long wharf" was acquired and reconstructed. The work consists of an abutment 35 feet in length, with end and side walls of stone, of 391½ feet of block and span work, and of cribwork head, 73 feet 9 inches, in line of work, by 112 feet.

During 1904-5, a warehouse 80 feet in length and 29 feet in width was constructed by the department at the outer end of the wharf.

During 1905-6, 1907-8, and 1908-9, small sums were expended in repairs to the old and new warehouses and to the retaining wall at inner end of wharf, in strengthening the horizontal fenders at outer end of wharf, and in constructing a gangway at inner face of the cribwork head.

During the fiscal year 1910-11, $219.70 was expended in repairing and painting to old warehouse, in painting new warehouse, and in repairs to covering of wharf.

During 1913-14, the sum of $2,797.31 was expended by day labour in the reconstruction of the whole top of the wharf, consisting of the renewal of all floor-stringers, covering, cap-timbers, and upper fenders, and in levelling up the work where it had settled.

PORT HOOD.

Port Hood, the shire-town of Inverness county, is on the west coast of Cape Breton island, 20 miles north of the northern entrance to the strait of Canso.

A pier on the east side of the harbour, commenced by the Provincial Government in 1865, was originally 550 feet in length and 24 feet in width, with an "L" on the south side of the outer end, 100 feet in length and 25 feet in width. It came under the charge of the Federal Government in 1871, since which time extensive repairs and renewals have been made, including the construction of a new block, 125 feet by 25 feet at the outer end, in 1873; the construction of a block, 50 by 32 feet, at the south end of the "L" in 1888-89, and the construction of a block, 71 feet by 24 feet at the outer end, in 1889-90. The old Provincial Government work was of squared timber, close-faced; the additions and part reconstructed by the department are of round timber, laid open-faced. The pier has been protected on the seaward side at the outer end and on the south end and inner side of the "L" by close piling, and on both sides to within 74 feet of the outer end, by a stone talus.

The work has been constructed entirely with native timber, and repairs and improvements have been made nearly every year since 1896-7, to the outer end, but owing to the bad condition of the work below the line of low water, nothing of a permanent nature can be done with the work until an extension, built with creosoted timber, is placed at its outer end.

During the year 1911-12, the sum of $1,336.83 was expended by day labour in cutting down to low water, a section of the northwest corner of the wharf, 40 by 20 feet, and in reconstructing it, ballasting it, and in close-piling its seaward face with native-timber piling.

During 1912-13, the sum of $496.51 was expended in renewing the covering where necessary, in reballasting sections of the pier where the ballast had been washed out

through the damaged face, and in strengthening this face with native-timber piling.

During a terrific gale on the 30th of December, 1912, the outer end of the wharf, which had been in a weakened condition for some years, was badly wrecked, and the landing of steamers was almost impossible at times.

In order to facilitate the landing of vessels and steamers, and to protect the old work until the outer end of the work can be rebuilt, during 1913-14 the sum of $5,198.28 was expended by day labour in the construction of a new cribwork block, 100 feet long and 20 feet wide on top, on the northern side of the outer end of the old work, sheathed all around with creosoted plank sheathing, but owing to the lack of funds, the block could not be covered in.

PORT JOLI.

Port Joli, Queens county, is a small fishing village situated about 14 miles southwest of Liverpool. Its people are dependent absolutely on fishing for a livelihood. In the fiscal year 1898-9, the department constructed a small cribwork wharf; about the year 1902, this work was extended. In the year 1912-13 the sum of $551.33 was expended, but the repairs were not completed. During the past season, the amount of $431.40 was expended. Work was commenced on November 10 and completed on November 26, 1913. The top was renewed and about one-third of the fenders replaced. Spring tides rise 7 feet; neap, 4½ feet.

PORT MAITLAND.

Port Maitland, Yarmouth county, is a prosperous and important fishing and farming village, with a population of about 600, situated on the southeast side of the mouth of the Bay of Fundy, 12 miles north of the county town of Yarmouth.

The harbour works were begun about the year 1859 by the Provincial Government. They consist of an eastern and a western, or main, breakwater of cribwork. The former is 400 feet long by some 20 feet wide and the latter 500 feet long, 22 to 25 feet wide, with a return 54 feet long, 24 feet wide and 27 feet high, along which there is a depth of water of 19 feet at H.W.O.S.T. The breakwaters or piers inclose a snug high-water harbour of 2¼ acres in extent.

In 1873-4, the department raised and extended the eastern breakwater, and has since maintained and improved the works. Details of expenditures incurred and work done may be found in the annual report for 1904-5 and 1910-11.

In 1913-14, the small sum of $47.17 was expended in emergent repairs to the floor of the breakwater, which was damaged by the gale of the 4th of January, 1913.

PORT MOUTON.

Port Mouton, Queen's county, is situated about 10 miles west of Liverpool. It is a fishing settlement of some eight or nine hundred people and is of considerable importance.

About the year 1887, the department constructed a mooring pier on the southern edge of the channel, 65 feet long and 25 feet wide.

In the fiscal year 1900, the Department of Public Works constructed a wharf, which consisted of a stone bank approach 112 feet in length, 4 blocks of cribwork, each 28 feet in length, separate from each other by three spans each 15 feet in length. It is 20 feet wide on top, with the exception of the last 28 feet which is 40 feet wide. It has at its face about 7 feet of water at L.W.O.S.T. During the fiscal year 1912-13, small repairs were made to the wharf. During the present year, however, the sum of $1,202.32 was expended in completing the repairs and rebuilding the top of the old pier. The work was commenced August 19, and was completed December 30, 1913.

In connection with the old wharf, during the present year 70 feet in length of the outside portion of it was new topped, whilst the inside block was renewed for the first three tiers of logs.

The old pier was torn down for 5 feet in height, was then rebuilt and planked on top. It consists of continuous round-log stone-filled cribwork, well fendered and fastened; the material procured was of the very best quality, and the workmanship extremely good. The whole work was completed in a most satisfactory manner. Spring tides rise 7 feet; neap, 4½ feet.

PORT MULGRAVE.

Port Mulgrave, Guysborough county, on the western side of the strait of Canso, nearly opposite Port Hawkesbury and Point Tupper. Population, 150. This place is sheltered and used as a waiting harbour for vessels passing through the strait during stormy weather.

During the season 1913-14, dredging was undertaken in order to improve the harbour, by deepening the basin and the dock at the outer end and to the north of the public wharf, to a depth of 13 feet at low water. The work was carried on under contract by the Coastal Dredging Co., Ltd., from August 29 to November 21. Dredging was performed over an area of 165,000 superficial feet; average cut 5·8 feet. Expansion factor, 19 per cent.

The quantities of material removed and cost were as follows:—

35,441 cubic yards class "B" at 29 cents	$10,277 89
2,170 cubic yards castover at 19⅓ cents	419 53
51·6 hours lost time removing wreckage at $17.55	905 58
	$11,603 00

PORTER'S LAKE.

Porter's lake is situated about the middle of Halifax county, distant 15 miles from Halifax; it is 18 miles in length and from a quarter to half a mile in width, and the water being of good depth for almost its entire length is navigable for vessels of 60 tons to its extreme head. The normal level of the lake is some 2 or 3 inches above H.W.O.S.T. Up to about 1873, the outlet, which is directly into the Atlantic, through a gravel beach 200 feet wide, was navigable for schooners drawing 6 feet of water, and a considerable trade was done in the export of fish, lumber, cordwood, and farm produce. Since that time, the outlet has been gradually filling up with accumulations of gravel washed in by southerly and easterly storms. In order to maintain the outlet, to prevent the roads along the margin from being flooded, and to admit fish into the lake, the department expended, in 1898, a total of $2,031.14 in sums of from $40 to $100. In 1901, numerous expenditures had been made on the permanent outlet, described in detail in departmental reports of 1907-8. These expenditures having resulted in but slight temporary relief and no permanent improvement, the department, in 1900-01, expended the sum of $8,262.44 in beginning the construction of a permanent channel through the neck of land, 2,400 feet wide, separating the main body of the lake from the extreme head of Three Fathom harbour. The total expenditure on this attempt at a permanent outlet has been $23,407.22, the last being $1,484.52 in 1908-9. In 1908-9, the sum of $106 was expended in reopening the old outlet and the sum of $596.86 in a new experimental outlet through Half Island beach. This has not proved a success, owing to the great exposure of the beach and the filling up of the outlet by sand and gravel after every heavy storm. The sum of $1,484.52 was further expended in deepening the permanent outlet.

During the year 1909-10, the sum of $176.69 was expended in opening and keeping open the old outlet.

During the fiscal year 1910-11, the sum of $4,506.39 was expended in widening and deepening the permanent outlet at the head of Three Fathom harbour. The earth has been removed from the Three Fathom harbour end of the work, on the west side of the cut, a distance of about 900 feet. The intention is now to widen the channel to 30 feet at the bottom and to deepen it to a depth of 6 feet below H.W.O.S.T.

During the fiscal year 1911-12, the sum of $8,242.03 was expended in widening and deepening the channel.

During the fiscal year 1912-13, the sum of $217.20 was expended in opening and keeping open the old outlet.

In the fiscal year 1913-14, the sum of $262.51 was expended in reopening and keeping open the outlet and in removing a large boulder which had become loosened in the bank of the opening and threatened to fall and block the outlet.

Work begun in May, 1913, and continued at various times until March 30, 1914.

PORTUGUESE COVE.

Portuguese Cove, Halifax county, is a small fishing village with a population of about 600, wholly dependent upon the fishing industry. It is situated 6 miles from the city of Halifax, on the western side of the harbour.

At some date previous to 1902, the department constructed a skidway 150 feet in length and 150 feet in width at low water and 50 feet wide at the shore end.

In 1908-9, the sum of $10,000 was expended in the construction, by contract, of a breakwater for the protection of the fishing fleet. The work is of cribwork construction, and provided on the seaward side with a break. It has a length of 217 feet, the shoreward 117 feet being 20 feet wide and the outer 100 feet, 30 feet wide. At the outer end the work is 21 feet high.

In the year 1913-14, the sum of $151.03 was expended in miscellaneous repairs to the skidway.

Work begun and ended in December, 1913.

PROSPECT.

Prospect, Halifax county, is a fishing village of about 400 or 500 people, situated on the Atlantic coast, 20 miles west of the city of Halifax. The annual catch according to the report of the Marine and Fisheries Department, is valued at $14,000, one hundred boats and one hundred and fifty men being engaged in the industry. The harbour is much exposed to seas from the south and southeast. In 1908-9, the sum of $3,226.98 was expended in the construction of a small breakwater for the protection of the fishing fleet. The work, which is substantially built of cribwork of the usual type, is 120 feet long, 30 feet wide, and from 12 to 14 feet high, provided with a break on the seaward side. During the year 1909-10, the sum of $103.20 was expended in completing the close-sheathing and planking. In 1910-11, the sum of $3,685.29 was expended in extending the breakwater 80 feet in length; the extension is 30 feet in width and from 12 feet high at the shore end to 14 feet high at the outer end where there is a depth of 4 feet of water; substantially built of stone-filled cribwork, with a break on the seaward side which is sheathed with 5-inch planking.

In the fiscal year 1913-14, the sum of $168.99 was expended in miscellaneous repairs to the work; some 35 tons of ballast was replaced; new planking for a length of 20 feet and sheathing for 20 feet were placed in position.

Work begun January and finished March, 1914.

RED ISLAND.

Red Island (East Chezzetcook), Halifax county, is a deep inlet about 20 miles east of Halifax harbour. The inlet is surrounded by a population of about 300 or 400, engaged in fishing and farming. In 1904-5, the sum of $3,993.26 was expended in the

construction of a detached breakwater for the purpose of forming a shelter for fishing boats and other craft. The work is 420 feet long, 14 feet wide and 5 to 8 feet high, subtantially built of cribwork and resting on a sub-structure of brush and stone, 20 feet wide and 2 feet thick.

During the fiscal year 1905-6, a further sum of $4,000 was expended in completing this work. The completed work is 846 feet long, 8 to 16 feet high and 16 feet wide, the cribwork resting on mattrasses of brush and stone. During the fiscal year 1913-14, the sum of $207.70 was expended in placing 200 tons of ballast, bolting down old caps, spiking down old flooring and rebolting fenders over a section of the work 100 feet long by 14 feet in width.

The work was begun and ended in November, 1913.

RIVER BOURGEOIS.

Dredging.

River Bourgeois, Richmond county, is a large settlement on the southern coast of Cape Breton island, and on the northern side of Lennox passage, a strait separating Cape Breton island from Madame island.

The harbour or inlet is about 1½ miles in length, half a mile in width, and is land-locked, with the exception of a narrow entrance which connects it with the sea. This entrance was very narrow and crooked, and, as it was obstructed by a sandbar outside, with only 8½ feet at low water, which prevented vessels from entering or leaving the harbour at all times of tide, it was decided to improve the entrance and to straighten and deepen the channel inside to a depth of 13 feet at low water. Spring tides rise 6 feet.

On August 13, 1912, an Order in Council was passed granting authority to accept the tender of the Coastal Dredging and Construction Co., Ltd., of Sydney, for the dredging required, and on August 28, the dredge *Cadeco* commenced operations, continuing until November 12 following, when the work under contract was completed.

The work done consisted in deepening the channel over the bar to 13 feet at low water, in a width of 125 feet, in straightening, widening, and deepening to the same depth the channel inside of the entrance; in overcasting a channel to Sampson's wharf, and in the removal of an old wrecked cribwork block which was dangerous to navigation, and the quantities removed and the rates paid for the different class of work, are as follows:—

49,603 cubic yards, scow measure, of mud and clay at 22 cents..	$10,912 66
17,300 cubic yards overcasting at 14¾ cents..	2,537 33
14.67 cubic yards boulders, 2 yards and over, at $8.50..	124 70
Removal of wreck, 31 hours at $23..	713 00
	$14,287 69

On May 23, 1913, authority was received to continue dredging under contract with the Coastal Dredging and Construction Co., for the removal of 18,400 cubic yards, scow measurement, of class B material at 22 cents per cubic yard.

On May 28, operations were resumed by dredge *Cadeco* and continued until June 21, when the work was completed, consisting of widening the entrance channel 200 feet at the outer end to 100 feet at the inner end, and in further straightening the channel inside by cutting off some points, and the total amount of material removed is as follows:—

18,389 cubic yards, scow measurement, mud, sand and clay at 22..	$4,044 92
12.9 cubic yards of boulders, 2 yards and over at $8.50..	109 65
	$4,154 57

ROUND BAY.

Round bay is a small fishing and farming settlement, situated on the north-west end of Round Bay beach, 14 miles south southwest of Shelburne town, and is located in Shelburne county.

At or near the northwest end of this beach a small river empties. Twenty years ago this stream was utilized by the fishermen up about a quarter mile above its entrance, where there were about ten fish houses and several small dwellings. Boats drawing 5 feet of water navigated it without difficulty. This has been an important trout and alewives stream.

About 1891, the Local Government of Nova Scotia constructed a bridge across the entrance of this river, and immediately afterwards the sand began to collect on the western side of the outlet, until it became almost entirely closed. During the past fiscal year, in order to better conditions, the department expended the sum of $1,350 in opening a straight channel, the work being done by day labour. It was commenced on June 23, and completed September 13, 1913. It runs from the central span of the bridge to L.W.O.S.T. mark, in the direction of north 115° south 30′ east. It is 300 feet long at its western side, and 270 feet on its eastern side, with a common width of 60 feet at the bottom, the sides sloping 2 horizontal to 1 perpendicular. Its depth is 3 feet above L.W.O.S.T., or what corresponds to one-half tide elevation. Since being opened it has deepened from 1 foot to 15 inches. The material removed consisted of sand and small round beach stones. Spring tides rise here 7 feet; neap, 4½ feet.

ROUND HILL.

Round Hill, Annapolis county, on the south or left bank of the Annapolis river, 8 miles east of the town of Annapolis. It is a station on the D.A.Ry. The population of the village is about 500 people, engaged in farming, fruit raising, and general trade.

In 1905-6-7-8 and 1909, the department expended the sum of $5,415 in the construction of a public wharf for the benefit of local trade. The work consists of a pile-work stem, 76 feet long, 25 feet wide, and from 5 to 16 feet high, terminating in a substantial block of cribwork, 75 feet long, 35 feet wide, and from 16 to 22 feet high, founded on piles driven to supposedly hard bottom and cut off level with the mud.

For further particulars see annual report for 1912-13.

In 1913-14, the sum of $61.55 was expended. The work, which is satisfactorily completed, consists of the building of about 20 rods of wire fence, and the repair of the road approach to the public wharf.

ST. JOSEPH'S.

St. Joseph's, Inverness county, is a fishing and a farming district on the western coast of Cape Breton island, about midway between the harbours of Margaree and Cheticamp, and about 1½ miles to the northwestward of the excellent boat harbour of Grand Etang.

During 1910-11, the sum of $600 was expended in the purchase of the property required for a road to connect a proposed breakwater for the protection of the boat-landing beach, with the public road, and the sum of $200.09 was expended in partially constructing the road.

On January 13, 1912, a contract was entered into for the construction of a breakwater in the sum of $10,275. Work of construction was commenced on July 15, 1912, and was brought to a satisfactory completion on October 14, following.

The work done by contract is 290 in length and 20 feet in width on top, with sides and outer end battering 1 in 12, and consists of a continuous round-timber cribwork structure creosoted to half tide, fully ballasted and fendered, and protected on the seaward faces with close-sheathing.

Besides constructing the breakwater, during 1912-13, the sum of $550 was expended by day labour in completing the construction of the road leading from the public road to the breakwater commenced during 1910-11.

During a very severe gale on December 30, 1912, the outer end of the breakwater for a distance of 75 feet, was badly wrecked and the top of the inner end was damaged, and during 1913-14, the sum of $1,299.02 was expended by day labour in removing the wrecked portion of the breakwater and in thoroughly repairing its inner end.

SAMBRO.

Sambro, Halifax county, is situated on the Atlantic coast, 16½ miles to the westward of Halifax harbour, and is an important fishing village with a population of 325, wholly dependent upon the fishing industry for a livelihood.

During the fiscal year 1910-11, the sum of $2,216.51 was expended in the construction of a block and span wharf; the work which was completed, with the exception of an "L" on the outer end, is 175 feet in total length, 20 feet in width, and from 8 feet at the shore end to 22 feet in height at the outer end, where at L.W.O.S.T. there is a depth of 11 feet of water. During the fiscal year 1911-12, the sum of $124.74 was expended in the purchase of timber for the completion of the "L."

During the year 1913-14, the sum of $162.33 was expended in the purchase of further timber in readiness for the completion of the work during the next fiscal year.

SANDFORD.

Sandford, Yarmouth county, is situated on the coast of the mouth of the Bay of Fundy, at the extreme western point of Yarmouth county, 7 miles northwest from the town of Yarmouth. The population of the place is from three to four hundred, engaged in fishing and farming.

A breakwater was begun in 1858 by the inhabitants, aided by the Provincial Government. The first expenditure by the department was in 1876, since which date numerous expenditures have been made in repairs, extensions and improvements, of which a full account will be found in the departmental report for 1908-9 and 1912-13.

In 1913-14, the sum of $197.41 was expended in emergent repairs to the floor of the breakwater, and in the replacing of a few pieces of sheathing on the seaward face of the work.

SAULNIERVILLE.

Saulnierville, Digby county, with a population of about 350 people, is situated on the northeast coast of St. Mary's bay, Bay of Fundy, 36 miles southeast of Digby, 32 miles north of Yarmouth, and 3 miles north of Meteghan river.

Some years before Confederation, a breakwater, serving also as a landing wharf, was built by the inhabitants, aided by the Provincial Government. In 1876, the sum of $4,000 was expended in making thorough repairs to the work and extending it a further length of 100 feet. Since that date, the work has had numerous expenditures in repairs and renewals, of which particulars will be found in the departmental report for 1904-5 and 1909-10.

In 1913-14, the sum of $1,972.67 was expended in repairs to the breakwater.

Spring tides rise 21 feet.

SCOTT'S BAY.

Scott's Bay, Kings county, is on the south side of Minas channel, Bay of Fundy, between Cape Split and Baxters harbour. The population of the settlement, within a couple of miles, is about 500. The works, which consist of two breakwaters, one on either side of the mouth of a brook, were begun by the department in 1878, since which date numerous small expenditures have been made in repairs, renewals and

extensions, of which a full account will be found in the departmental report for 1906-7 and 1912-13.

In 1913-14, the sum of $1,200 was expended. The work, which is satisfactorily completed, consists of the completion of the block built in 1912, 60 feet long, from 26 to 30 feet wide and from 24 to 26 feet high, built on 42 piles driven to hard bottom, and cut off to the level of the beach. The finishing of this block comprises 61 feet of break, 43 feet in length of sheathing and 30 feet in length of break on the older or shore portion of the work. A reinforcing block was built on the seaward face of the old work, 51 feet long, 9 to 12 feet wide, and from 14 to 20 feet high. The whole of the work is of substantial round-log, native-timber cribwork, filled with stone ballast.

SEAFORTH.

Seaforth, Halifax county, is a fishing and farming settlement 24 miles east of Halifax, 3 miles west of Chezzetcook, and has a population of 160.

During the fiscal year 1913-14, the amount of $8,775 was expended under contract with the Halifax Dredging Company, in the partial construction of a breakwater. The amount of the contract is $17,300, and the work done forms about 74 per cent of the whole; 342 feet in length and 25 feet in width of the work has been completed. The breakwater, when completed, will measure 451 feet in length by 25 feet in width with an "L" 31 by 15 feet.

Work was done from July 4 to October 18, 1913.

SEAL ISLAND.

Seal island, Shelburne county, lies 18 miles southwest of Clarke's Harbour, and is a fishing settlement of considerable importance. There are twenty-six houses, a church, a school, and a large fog alarm station situated on this island.

On the western side of the island there is a long low beach on the southern point of which the fishermen from time to time have constructed temporary landings. On the northeast of these landings, they have built their skids, on which they haul up their boats. During the past few years, the old temporary work having been in the meanwhile destroyed, the beach was gradually being driven back, so that in the course of two or three years, it would have been practically untenable. It was therefore decided to construct a breakwater directly along the sides of the old protection, and it began at the top of the beach, running seaward a distance of 180 feet to a point about 40 feet below L.W.O.S.T. The construction of this breakwater prevents any further inroad upon the beach which, if once destroyed, would render their fishing station useless. During the fiscal year 1912-13, the sum of $2,677.85 was expended in the commencement of this work, when only 110 feet in length was constructed. During the past year, the amount of $967.18 was expended, and the remaining 70 feet of the breakwater was constructed. This work, as complete, is 180 feet in length, 16 feet wide on top, with a batter of 1 to 4 on the outside face, and has a height of 16 feet at the outside end. It is constructed of heavily fendered round-log cribwork, filled with ballast to the top. Work was commenced on August 15 and concluded on October 18, 1913. Spring tides rise 12 feet; neap, 8½ feet.

SEASIDE.

Seaside, Inverness county, is on the eastern side of St. George's bay, near the southern entrance to Port Hood harbour, and about 2 miles south from the town of Port Hood.

The wharf, constructed by the department during 1895-6-7, is 300 feet in length and 20 feet in width on top, of open-faced cribwork, close-fendered at the outer end and fully ballasted. The substructure is of creosoted timber, and the superstructure

of native timber. In 1901, the outer end was moved by ice from the south, 11 feet out of line, the movement commencing 74 feet inward; subsequently the outer end face-chambers were filled with concrete up to low water and above that with ordinary ballast. The depth at the outer end at extreme low water is 7 feet.

Spring tides rise 4 feet.

During 1909-10, the sum of $618.63 was expended in repairs to the covering, in constructing about one-half of a new road, 371 feet in length, from the wharf to the public highway, and during 1910-11, the sum of $199.01 was expended in completing the road commenced in the previous year.

During 1913-14, the sum of $2,121.61 was expended by day labour in repairing the outer faces of the work by close-sheathing, in renewing ballast in empty chambers, in preventing the wasting away of the bank at the inner end, by cribwork protection, in deviating the road near the shore and in thoroughly repairing the same.

SHAG HARBOUR.

Shag Harbour, Shelburne county, Nova Scotia, is situated about 6 miles southwest of Barrington Passage. It is a settlement of about 600 people. Fishing is the main stay of the entire settlement, there being about 50 motor boats, averaging in value $350, utilizing this harbour. Coastal steamers, which ply between Yarmouth and other places along the shore, wished to make this a port of call, but were unable to do so until a passage through a bar or reef of boulders lying some one-third of a mile from the outside end of the dredged channel, had been made. During the past fiscal year, a passageway, 45 feet in width, was blown out of this reef, and the pieces removed. Work was commenced on October 15, and completed on December 18, 1913. During that time, 1,014.3 cubic yards were removed, the cost being $4.15 per cubic yard, or slightly more than $2 per ton. The rocks removed consisted principally of granite, there being a few boulders of blue whin. Spring tides rise here 9 feet; neap, 5½ feet.

SHEET HARBOUR.

Sheet harbour is situated on the Atlantic coast of Nova Scotia, in the eastern part of Halifax county. The village which surrounds the harbour, contains a population of 600, and is a thrifty and prosperous community engaged in farming and fishing. The harbour is one of the finest in Nova Scotia, being of considerable extent, and having an abundant depth of water. It runs inland about 6½ miles to Jerrard's point, where it divides into two arms, receiving respectively the East and West rivers.

During the fiscal year 1905-6, the department expended the sum of $2,205.15 in building a cribwork and pile-work wharf at the mouth of the West river.

In 1906-7, a further sum of $1,298.44 was expended in completing the work; the wharf consists first of a stone bank approach, 50 feet long, 25 feet wide and from 2 to 8 feet high; second, pile-work, 141 feet long, 21 feet wide and from 8 to 20 feet high, the pile-bents being 10 feet apart; third, substantial cribwork, 40 feet long, 25 feet wide and 20 to 22 feet high, with an "L" 61 feet long and 20 feet wide, giving a face length of 86 feet, along which, at L.W.O.S.T. there is 15 feet of water.

In the fiscal year 1913-14, the department expended $998.44 in miscellaneous repairs to the work; 800 square feet in area of the wharf was raised from 0 to 24 inches; the whole top of the wharf was replanked, and eight new caps and six new fenders were placed. The freight shed was painted and a new crane was placed.

Work begun in August, and completed September 29, 1913.

SHEET HARBOUR PASSAGE.

Sheet Harbour pasage, Halifax county, is the name of a small island between Sober island and the mainland at the north of Sheet harbour, 60 miles east of the city of Halifax. The mainland adjoining the passage has a population of about 150

During the fiscal year 1911-12, the sum of $801.27 was expended in the construction of a block and span wharf for the accommodation of the fishermen and to serve as a landing pier for freight, etc.

In 1912-13, the sum of $199.37 was expended in completing the wharf begun in 1911-12. The work consists of the completion of the outer block of the wharf; the block was raised about 2 feet, ballasted and planked, and fenders and guard timbers were also placed.

In 1913-14, the sum of $200 was expended in building up the approach to the wharf and building in between the walls with stone and gravel for a length of 50 feet by a width of 20 feet and an average depth of 3 feet.

A further extension of this work is required.

Work begun in June and finished in July, 1913.

SHELBURNE.

The town of Shelburne is situated at the mouth of the Shelburne river, at the head of Shelburne harbour, which is so well known that a detailed description is unnecessary. In order to afford facilities for larger draught vessels to call at this port, the department began the construction of a wharf on September 28, 1910, which was completed on the 27th of May, 1913. The wharf is 966 feet in length, consisting of three parts.

First, Approach.—An approach in the usual rock bank form, 480 feet long, 40 feet wide on top, and about 9 or 10 feet high at its outside end, with both sides sloped to a batter of 1½ to 1.

Second, Block and Span Work, 90 feet in length.—This portion consists of three cribs, each 20 feet in length, separated from each other by two spans, each 15 feet in length. These cribs are 40 feet wide, and are filled with ballast to the underside of the floor stringers. Objection was taken by the railway to the effect that the spans were too long, and trestles resting upon mud sills were placed under the centre of each of them.

Third, Pile Work.—The remaining 396 feet in length is constructed upon pile trestle bents, separated from each other 9 feet longitudinally, measured from centre to centre of pile heads. The first 296 feet is 40 feet wide on top, whilst the outside 100 feet in length is 70 feet wide, the "L" on the outside being 100 feet long by 30 feet, and placed on the eastern side of the wharf. The height of the work at the outside end is 36 feet, which corresponds to a height of 4 feet above H.W.O.S.T. During the past fiscal year, the sum of $775.16 was expended in connection with this work. The Halifax and South-western Railway Company demanded stringers to be placed so that they would be immediately underneath the rails in case tracks were laid on this wharf. This entire covering of the wharf had to be taken up and three sets of stringers for the 480 feet in length of cribwork and pile trestle bent, were laid, when the covering had to be replaced. Spring tides rise 6½ feet: neap, 4 feet.

SOBER ISLAND.

Sober island, Halifax county, is situated at the mouth of Sheet Harbour, 60 miles west of the city of Halifax and is a small island, 3 miles in length and three-quarters of a mile in width, separated from the mainland by a narrow channel known as Sheet Harbour passage. The population consists of about 50 families, engaged almost wholly in the fishing industry.

In the year 1902-03, the sum of $797.18 was expended in the construction of a small wharf. In the fiscal year 1911-12, the sum of $71.20 was expended in the purchase of timber for the construction of an "L" to the outer end of the wharf.

In the fiscal year 1912-13, the sum of $914.59 was expended in the construction of two small "Ls" to the wharf, one being 25 by 30 feet, with a height of 18 feet, and

the other measuring 10 by 20 feet with a height of 18 feet. A freight shed was also built, measuring 18 feet by 15 feet.

In 1913-14, the department expended the sum of $259.41 in replanking the wharf and two "L's" with 3-inch planking, and placing new guard-timbers and some new fenders.

Work begun in September and completed in October, 1913.

SOUTH GUT.

South Gut, Victoria county, is the local name of the southern arm of the head of St. Ann's harbour, on the eastern coast of the island of Cape Breton.

A wharf was constructed by the department during 1890-91, on the southern side of South Gut, 198 feet in length and 20 feet in width, extending to 6½ feet at low water, and consisting of a shore abutment, 48 feet long, and of four 20-foot blocks, built with native round timber, with intervening spans, 17½ feet in length, and during 1902-3, an additional block 20 by 40 feet was placed 17 feet from the end of the wharf and connected therewith by a span, increasing the depth at the outer end to 8 feet at low water.

During 1903-4, the covering, the cap and fenders on the original work were renewed, and the approach was graded and gravelled, and during 1910-11, a small freight shed, 10 by 16 feet, was constructed on the outer end of the wharf.

During 1911-12, the sum of $153.80 was expended in temporary repairs to the covering of the old work, by renewal of floor-stringers and covering where mostly needed.

During 1913-14, the sum of $511.59 was expended in the renewal of all the floor-stringers of the original work, placed there twenty-two years ago, and of the covering and guard-rails.

SOUTH INGONISH.

Ingonish bay, Victoria county, is situated on the eastern coast of Cape Breton island, about midway between Sydney harbour and Cape North, and is divided into North and South bays, by Middle Head, a narrow and rocky neck of land, over 2 miles in length.

At the head of South bay there is an extensive lake, separated from the sea by a beach, though there formerly existed but a shallow channel.

In 1873, works were undertaken by the department for the improvement of the channel. On their completion in 1876, there was a channel 200 feet in width with a depth of 14 feet at low water, and with its northern side protected by a pier, 500 feet in length, thus giving vessels access to the lake which has an area of about 400 acres and a great depth and affords a safe and commodious harbour.

The pier, on which small sums were expended every year from 1876 to 1880, and large amounts in 1881 and 1882, sustained serious damage during easterly gales in 1882, and was subsequently carried away down to below low water.

During 1886-7, a beach protection work, 58 feet in length and 20 feet in width, was constructed on the northern side of the entrance to prevent the sea from cutting away the end of the beach and opening up a new channel between it and the remains of the old breakwater, and during 1894-5, a beach, back of the protection work, was closed with a cribwork block, 45 feet in length and 15 feet in width.

During 1893-4, a public wharf, extending to 10 feet at low water, was constructed on the beach on the northern side of and next the entrance to the harbour. This wharf has been used since its construction without requiring any repairs, but owing to its weak condition and the shallowness of the water at its outer face, it was decided to repair and extend it.

Out of the amount voted for expenditure during 1913-14, the sum of $4,358.22 was expended in the construction of the addition, consisting of a cribwork block, with creosoted timber substructure, 40 feet long and 20 feet wide, connected with the old work by a span 32 feet wide and 10 feet long.

The new work was completed; the top of the old work was repaired, and a warehouse, 12 by 16 feet, was built and placed on the outer end of the old work.

SOUTH LAKE.

South lake, Lakevale, Antigonish county, is situated on the western shore of St. George's bay, about midway between the entrance to Antigonish harbour and cape George.

It is a large sheet of fresh water, separated from the bay by a beach of sand and gravel, about 900 feet in length, 300 feet in width, and about 8 feet above the level of high water springs.

In 1907-8-9, a channel was cut through the beach, 40 feet wide at the bottom and 2 feet below high water, and a breakwater was built 300 feet long and 20 feet wide, consisting of ordinary cribwork, to protect the north side of its seaward entrance; during 1909-10, the channel was completed through the beach to a depth of 1½ feet below low water springs.

In 1910-11, a brush and stone dam, 75 feet in length, 12 feet in width on top, was built at the inner end of the breakwater to close a breach made there, and 150 cubic yards of sand and gravel was removed from the channel.

In 1911-12, the sum of $1,707.88 was expended in procuring timber and ballast required for the construction of a proposed extension, 40 by 20 feet in line of work built of round-timber cribwork, with creosoted timber substructure, fully ballasted and sheathed on all faces with creosoted and hardwood sheathing.

During the fiscal year 1913-14, the sum of $1,653.88 was expended in constructing a brush and stone retaining wall, 8 feet wide, from the inner end of the breakwater, a distance of 90 feet along high water; in partially reballasting and in repairing the breakwater, and transferring from McNair's Cove the creosoted timber required for the proposed extension.

Dredging.

Dredging was undertaken at South lake with the object of deepening to 8 feet, at extreme low water, a channel 60 feet in width, to give access to South lake and thereby provide accommodation and protection for fishing boats during all kinds of weather.

During the season 1913-14, the Government dredge *George McKenzie* worked from April 26 to October 11, 1913, over an area of 64,800 superficial feet, dredging a channel 60 feet wide to 8 feet at low water. This, providing no refilling took place, would involve the removal of 21,150 cubic yards *in situ*, but there was a total removal of 36,325 yards, made up as follows: overcasting, 23,370, and scow, 12,955 cubic yards.

The apparent discrepancy between the "*in situ*" computations and returns is due to the fact that a great deal of refilling occurred while the dredging was in progress during stormy weather, storms from the east and northeast being the worst on account of the lack of protection from these directions. The returns are practically correct, and the material should show an expansion factor of say 25 per cent and, consequently, the dredge would be credited with the removal of say 27,244 cubic yards in situ at this place.

SOUTHWEST COVE.

Southwest cove, Lunenburg county, is situated on the west side of St. Margarets bay, about 6 miles from the village of Hubbards. It is a small cove formed by an island lying close to the mainland. The population of the district is about 100. For

the convenience of the fishermen of the district, as well as for others passing to and from the fishing grounds, the department expended, in the year 1911-12, the sum of $250.73 in deepening the channel between the island and the mainland to allow the passage of boats at high water.

In the year 1913-14, the department expended the sum of $521.56 in the construction of a one-span bridge and approaches thereto. The bridge measures 12 by 12 feet, the approach on the eastern side is 52 feet long and 16 feet wide, and on the western side is 65 feet long and 16 feet wide, built of stone and covered with gravel.

Work was begun in October, 1913, and completed March, 1914.

SPANISH SHIP BAY.

Spanish Ship bay, Guysborough county, is an arm of Liscomb harbour, the entrance to which is about 8 miles east of the Halifax and Guysborough county line at Ecum Secum.

In 1910-11, a wharf was purchased from Zebedes Hartling for $420, and $455.01 was expended in raising and reballasting the work, and in building an approach.

In 1911-12, the sum of $324.75 was expended in purchasing some material for a proposed extension.

During the fiscal year 1913-14, the sum of $300.02 was expended in purchasing further timber and ballast for the extension. Total expenditure to March 31, 1914, including the cost of purchase, $1,499.81.

SPRY BAY.

Spry bay (Henleys) is situated about 70 miles east of Halifax city, Halifax county. The adjacent population numbers about 1,000 and are chiefly engaged in fishing and farming.

In the fiscal year 1913-14, the department expended the sum of $2,798.58 in the partial construction of a block and span wharf. The work done consists of a length of 128 feet by 20 feet, with an average height of 14 feet, comprising an approach and three cribs. The work when completed will be 210 feet long, 20 feet wide, with an "L" of pile work 20 by 25 feet.

Work was begun in August, 1913, and suspended March 9, 1914.

SPRY HARBOUR.

Spry harbour, Halifax county, is the eastern arm of Spry bay. It is well sheltered, free from ice, and close to the route of the steamer making weekly trips between Sheet harbour and Halifax. Around the harbour, within a radius of 2 miles, there is a population of about 200, chiefly engaged in fishing and farming.

In 1908-9, the sum of $731.49 was expended in the construction of a small public wharf which was not quite completed. During the year 1909-10, the sum of $744.16 was expended in completing the wharf. The work consists of a block and span wharf, with a stone and gravel approach; the approach is 20 feet wide, 50 feet long, and from 3 to 8 feet high, and the wharf 20 feet wide by 130 long, 20 feet high at the outer end, where there is a depth of water of 10 feet at L.W.O.S.T.

In the fiscal year 1913-14, the sum of $50 was expended in repairing the wall of the approach and in replacing a portion of the floor planking which had become dilapidated.

Work begun and ended in October, 1913.

STERLING BROOK.

Sterling Brook, Hants county, is situated on the north shore about 3 miles west of Maitland and about 5 miles east of Selma, where there is also a public wharf. The population is about 300 and the shipments of lumber amount to about one million feet annually. Small shipments of farm produce and hay are also made from this place.

In the fiscal year 1912-13, the sum of $1,419.32 was expended in the partial construction of a wharf at Sterling Brook. This is a pile wharf 80 feet long, of which 60 feet is 42 feet wide, and 20 feet is 20 feet wide. An approach of cribwork, 25 feet long and 20 feet wide was constructed. Piles were also driven and cover put in place, and a small point was removed to improve the river channel.

In the fiscal year 1913-14, the sum of $249.03 was expended in placing a number of fenders around the face of the wharf and finishing up the wharf generally with guard rails and mooring posts, etc. A quantity of mud was removed from the approach to the wharf, making it more convenient of access.

Work begun in June and closed September 4, 1913.

SUMMERVILLE.

Summerville, Queens county, is a small fishing and farming settlement of about 250 people, situated on the Atlantic coast of Queens county, 8 miles southwest of Liverpool. In 1878, the department built a breakwater for the accommodation and shelter of fishing vessels. The work was about 200 feet long, 20 feet wide on top, and 16 feet high on the outer end. In the year 1892, about half of this work was destroyed, but was repaired. In the winter of 1899, a heavy storm completely destroyed the breakwater. Examination being made, it was decided to construct a work of a more permanent nature, so that in the year 1900-1, a breakwater was constructed on a site immediately contiguous to the old site.

This work consists of large stones cemented together and securely fastened to each other by large iron dogs. The centre of the work is about half solid concrete. It consists of an approach 58 feet long 12 feet wide on top and 6 feet high on the outer end, and a main structure 90 feet in length, 24 feet wide on top, 33 feet on the bottom, with a height at the outer end of 16 feet. During the past fiscal year, the amount of $1,655.10 was expended upon this work. Work was commenced on August 9, and completed on the 31st of October, 1913. For 60 feet of its outside face, and a width of 4 feet, this portion of the work was rebuilt to a depth of 13 feet. Besides this, the outside 40 feet for a depth of 2 feet and a width of 10 additional feet, was practically renewed. The main work, however, consisted of an extension to the present breakwater, 20 feet long, 22 feet wide on top, with a height on the outside face of 18 feet. The style of construction was similar to that of the present breakwater, the outside face stones being dogged together with 1½-inch round iron dogs from 3 to 5 feet in length. Spring tides rise 7 feet: neap, 5 feet.

SWIMS POINT.

Swims point is located at the southeast end of Clarke's harbour, or what is locally termed Lower Clarke's harbour. There is a public wharf, constructed in the year 1899 by this department, situated at this place. It is the most important wharf in that vicinity, and exceeds in importance any other wharf in the western section of Shelburne county. The coastal steamers plying between Yarmouth and the shore points call twice a week, and boats plying between these points and St. John and Halifax likewise utilize this wharf; there is about 14 feet of water at the head of the wharf at L.W.O.S.T., and good anchorage. In order to make the approach to the wharf safe, and to improve the docks along the sides, it was decided to expend a sum not

exceeding $5,000 in removing boulders and rocks in that vicinity. Work was commenced on January 2, 1914, but, owing to weather conditions, ceased on the 5th of the same month. It was again resumed early in March and, at the end of the fiscal year, about $2,600 had been expended. Authority has been received for completion of this work during the month of April, 1914. Up to the end of the fiscal year, namely, the 31st of March, 313 cubic yards of stone had been removed. These stones are mostly embedded in the mud, and considerable difficulty has been met in obtaining successful removal. The cost per yard, up to that date, is $8.32, but the total work should show a yardage cost ranging from $7.60 to $7.90, which would make the cost per ton between $3.80 and $3.90. The character of the stone removed is granite with a few exceptions, where boulders of blue whin were encountered. Spring tides rise here 9 feet; neaps 5½ feet.

TANGIER.

Tangier, Halifax county, is a thriving settlement with a scattered population of 500 to 600. It is situated at the head of Tangier harbour, 50 miles east of Halifax. In the neighbourhood are extensive gold areas famous for having produced the largest nugget (27 ounces) ever found in Nova Scotia. In the year 1907-8, the sum of $2,080.89 was expended in the construction of a block and span wharf. The following year the sum of $628.89 was expended in the completion of the road approach. The work, as completed, consists of a rock and earth approach 80 feet long and 25 feet wide. During the year 1911-12, the sum of $410.97 was expended in the construction of a small freight shed on the wharf.

In the year 1913-14, the sum of $1,222.61 was expended in repairs to the approach and wharf. The road was repaired by rebuilding wall on the seaward side for a length of 575 feet, an average height of 2 feet; the width of the road was increased by 6 feet, filled in and graded. New flooring was also placed over a portion of the wharf.

Work begun in October, 1913, and was finished January 6, 1914.

TATAMAGOUCHE.

Tatamagouche, Colchester county, is an important town on Northumberland strait, 30 miles from Truro. It is also an important station on the Intercolonial Short Line running from Oxford Junction to Pictou.

During the fiscal year 1905-6, the department expended the sum of $1,116.19 in beginning the construction of a cribwork wharf. In 1906-7, the department expended the sum of $810.27 in completing the work. It consists of a cribwork wharf built over and around the ancient structure. The completed work was 100 feet long, 62 feet wide and, at the outer end, 14 feet high, with a depth of water of 12 feet.

In the fiscal year 1912-13, the sum of $886.15 was expended in the reconstruction of block and span work, 146 feet long, 20 feet wide and with a 10-foot "L." Repairs were also made to the approach.

In the fiscal year 1913-14, the sum of $149.99 was expended in the replanking of 4,000 b.m. of the wharf, in placing eight new fenders, and in making miscellaneous repairs to the work.

TERANCE BAY.

Terance bay, Halifax county, is a small village of about 250 people, situated 21 miles west of Halifax. The inhabitants are wholly dependent upon the fishing industry for their livelihood.

The department, in the fiscal year 1913-14, constructed a block and span wharf 121 feet long, 25 feet wide, with an average depth of 15 feet. The expenditure for this work was $4,321.42.

An extension to this wharf is asked for at an estimated cost of $4,000.

Work begun in August, 1913, and suspended January 6, 1914.

THE SQUAM.

The Squam, Lunenburg county, is a channel between Moser's island on the south and Wolfe's island on the north, of the La Have island group, about 14 miles southerly from the town of Bridgewater.

To provide a shorter route for the fishermen, 2,500 cubic yards of mud were removed by hand digging to obtain a depth of 4 feet at low water.

Work was done between September 25 and October 23, at a cost of $499.47.

THE THRUM.

Upper Port LaTour, Shelburne county, is a small fishing settlement situated on the shore of Negro harbour, a distance of 7 miles from Port Clyde. The fishing industry is practically the only occupation of the people, and about twenty-five men are engaged in the same. The Thrum is a small mound or hill situated about 800 feet from the main shore, to which it is connected by a stone and gravel beach. The northern side of this beach has, in past years, been used as a boat harbour by the fishermen, but it is being gradually levelled off and washed away by the action of the sea. This gradual washing away of the beach assumed such serious proportions that the protection afforded the fishermen, who use this small harbour, was threatened with destruction. In view of that fact, the department, during the present year, constructed a beach protection running along both sides of the beach, upon which the sum of $1,521.19 was expended. Work was commenced about August 15 and completed about November 22, 1913. During the winter, an unusually heavy formation of drift ice caused a break in this protection, and the sum of $125, which is included in the above expenditure, was expended in the month of February in repairing this work. It is 844 feet in length and 6 feet high. It takes the form of a heavy fence consisting of 4-inch plank, placed close together so as to form a continuous 6-foot high wall above the surface of the beach, for its entire length. These plank are fastened with 9-inch spikes to 8-inch posts sunk into the ground 5 feet, and distant from each other 8 feet, along the entire length of the work. These are braced with 8-inch braces, each of which rests upon a mud sill sunk 2 feet below the surface. Spring tides rise 8 feet; neap, 5½ feet.

THE WHARVES.

The Wharves, Lunenburg county, is the name given to a settlement in the district of Cherry Hill, where there is an exposed harbour. This place lies 9 miles west of Petite Rivière, and has a population of about 200.

During the fiscal year 1910-11, the sum of $632.98 was expended in the purchase of timber for construction work to be carried on in the next fiscal year.

During the fiscal year 1912-13, the sum of $1,959.03 was expended in the partial construction of a breakwater. The work done measured 195 by 20 feet, and had an average height of 6 feet. Timber was purchased for the continuation of the work under the 1913-14 appropriation.

In the fiscal year 1913-14, the sum of $1,499.76 was expended in the completion of the wharf begun last year; 60 feet in length of new work was constructed and connected with the older portion begun last year. The completed work measures 255 feet long, 20 feet wide and is about 10 feet in height.

Work begun in October, and was completed December 17, 1913.

TROUT COVE.

Trout cove, Digby county, is on the Bay of Fundy coast of Digby Neck, midway between Digby Gut and Petite Passage, or about 18 miles from either. The settlement at and near the cove, which is called Centreville, has a population of about 400, engaged in fishing and farming. A factory for the canning of finnan haddies, kippered herring, etc., does a considerable business.

A breakwater was begun in 1856 by the inhabitants, aided by the Provincial Government. It was extended in 1876 by the department, and since that date numerous expenditures have been made in repairs, renewals and extension of which a full account will be found in the departmental report for 1911-12 and 1912-13.

For the purpose of constructing an entirely new breakwater, the department, in 1912, awarded a contract to Messrs. MacKay Bros. of Sydney, N.S., representing the Norfolk Creosoting Company, of Norfolk, Va., for the supply of 520,000 feet, b.m., of 10 by 12-inch creosoted pine, at the contract price of $54.75 per thousand, delivered. The first cargo, comprising 460,000 feet, b.m., arrived at Trout cove on the 17th of August, 1912. The second cargo of 60,000 feet, b.m., was expected to arrive in April.

Early in August, a contract was awarded to Mr. E. R. Reid, for the construction of the new breakwater, for the sum of $44,500, the department furnishing the creosoted timber. The work was begun about the 8th of August, 1912, construction being closed down for the season at the end of November. Since that date, the contractor delivered on the site of the work a considerable quantity of timber and ballast, and at the end of March, 1913, the total value of work done and materials delivered by the contractor was $8,450.

On the 1st of April, 1913, work was resumed, and during the year up to September 30, progress estimates amounting to $36,270 of the total contract price of $44,500, were allowed the contractor. In the autumn, the work was as usual closed down and left safe for the winter, the contractor again beginning work in the spring of 1914.

The work throughout its progress has been carried on with due diligence, and in an economical and business-like manner, and when completed will be of the following dimensions:—

	Feet.
Length of main structure, measured on centre line, outside of break timbers to beginning of deck at shore end	560
Length of "L" measured on centre line, outside of guard to outside of break timbers	191
Width of work (main structure) on top	30
Width of work ("L") on top	32
Height, from 5 to 45 feet.	

Up to 5 feet above L.W.O.S.T., the work will be composed of creosoted pine timber, 10 by 12 inches; the remainder, native round-log cribwork.

Besides a freight shed and waiting room, the breakwater has been provided with ramp and steps on the harbour side, for the accommodation of freight and passengers during the rise and fall of tide. Spring tides rise 23 feet.

The sum of $502.49 was expended in removing some ledge rock that obstructed the boat berth alongside the new breakwater, now under construction, and the sum of $80.77 was expended in effecting emergent repairs to the old breakwater.

VICTORIA BRIDGE.

Victoria Bridge, Cape Breton county, is situated at the southern end of Mira lake, about 26 miles inland from the mouth of the Mira river, and is respectively 13 and 21 miles above Albert and Marion bridges, both of which are drawbridges.

During the summer season, a small steamer is engaged in the passenger and freight traffic, and in towing scows carrying coal and merchandise on her upward trip and pit-timber on her downward trip. As it is both difficult and expensive and sometimes almost impossible to land freight and passengers, the construction of a wharf was decided upon, and during 1913-14, the sum of $881.95 was expended by day labour in the construction of a block and span wharf, 96 feet in length and 20 feet in width, and extending to 9 feet at low water.

WALTON.

Walton, Hants county, is the mouth of La Tête river, and is situated on the south shore of the Basin of Minas, bay of Fundy, about 14 miles northeast of Cheverie, at the mouth of the Avon river. The village of Walton, which is situated at the head of the harbour on its northeast side, has a population of 500. The most important industry of the place is the shipment of gypsum, of which from 2,500 to 35,000 tons annually are shipped to the United States. The annual lumber shipment varies from two to five million feet.

For the protection of the harbour, a breakwater was built by the department in 1891 at a cost of $6,170, by contract. The work is 250 feet long, 28 feet high at the outer end, and 22 feet wide on top. At the outer end of the work is a depth of 24 feet at high tide.

During the fiscal year 1910-11, the sum of $176.19 was expended in making repairs to the end of the work which was run into and damaged by a tow boat.

During the fiscal year 1913-14, the sum of $1,000 was expended in general repairs to the breakwater; the top row of longitudinals and cross-ties were removed and replaced with new material; the whole work was replanked and new guard timbers and fenders were placed on the inner side.

A block and span wharf 400 feet long and 25 feet wide, with an average height of 25 feet was started by Albert Parsons, contractor; the amount of the contract was $14,400, and the gross expenditure $6,356.25.

Work was begun in August and completed December 9, 1914.

WASHABUCK CENTRE.

Washabuck, Victoria county, is a district on the south side of the eastern end of St. Patrick's channel, an arm of the Little Bras d'Or lake, and extends about 6 miles along the shore. As the name implies, Washabuck Centre is situated near the centre of the district.

In order to facilitate the shipment of agricultural produce and cattle from the district, on April 6, 1903, a contract was entered into for the sum of $5,860, for the construction of a wharf.

The work of construction was commenced on July 1, 1903, and was brought to a satisfactory completion on September 9, following. It consists of a block and span wharf, 218 feet long, extending to 12 feet at low water, 20 feet wide, with an "L" at the outer end, 20 feet by 20 feet, and of a road to connect it with the public road, 102 feet long on the centre line, and 20 feet wide, fenced in on each side. The blocks and the shore abutment are constructed of round-timber cribwork, laid open-faced, with creosoted timber substructure and the two outer blocks are protected by close-sheathing on their outer faces.

During 1908-9, the sum of $199.98 was expended in raising the guard timbers a height of 20 inches on the channel face of the outer block and around its outer corners, for a distance of 10 feet, and in slight repairs to the inner end of the shore abutment of the wharf.

During 1913-14, the sum of $99.68 was expended in renewing portions of the covering, which, in places, were in a dangerous condition, and 2,400 feet b.m. of 3-inch plank were used in the repairs.

WEST BACCARO.

West Baccaro, Shelburne county, is about 3 miles west of the village of Port LaTour, and has a population of about 400, practically all of whom are dependent upon the fishing industry for their livelihood. It is one of the roughest spots on our coast, and in the year 1903-4, in order to convert a partially low tide pond into a boat harbour, the department constructed 1,055 feet in length of cribwork of the beach protection style, along two sides of this pond, leaving a channel on the inner end of the pond as a means of entrance thereto, which channel was 225 feet in length, 25 feet in width, and 3 feet in depth. The cribwork thus constructed is 8 feet wide on top and from 4½ to 12 feet in height. During the fiscal year 1910-11, $1,954.12 was expended in extending this breakwater at its northern end, so that the extension formed a wharf, at which the small steamers plying along this coast could call. The extension constructed during that year was 120 feet in length, consisting of continuous cribwork, the first 100 feet being 8 feet wide, and the last 20 feet being 20 feet. During the past fiscal year, the sum of $1,231.38 was expended in constructing a further extension northward to this work, 40 feet in length, 20 feet width, with a height of 21 feet at the outer end. This consists of cribwork, continuous round log, stone-filled to the top, with the usual covering. Besides this, the entrance was still further deepened, about $150 of this amount being expended upon that portion of the work. Work was commenced about the middle of September, and completed about the 10th of December, 1913. Spring tides rise 8½ feet; neap, 5½ feet.

WEST BERLIN.

West Berlin, Queens county, is a village of about 300 people, all of whom are fishermen, but do a slight amount of farming as well. It is situated about 8 miles northeast of Liverpool. In the year 1900, a beach protection some 450 feet in length was constructed along the outside of the beach at the entrance to the small harbour. During the past year, the sum of $399.93 was expended in effecting repairs to this work and extending it an additional 30 feet, so as to prevent the landing being filled up with rocks washed around the end of the old work. Work was commenced on the 18th of March, and completed on the 31st of March, 1914. The material was procured in the fall but, owing to the heavy weather prevailing late in that season, it was deemed advisable to wait until spring before doing the work. About thirty longitudinal logs were replaced, twelve fenders, and the cribwork extension as before referred to, 30 feet in length, 6 feet wide on top, with the usual batter, was built, also about 100 tons of ballast which had been removed from the cribs by ice and storms of former years, was replaced. Tides rise: spring, 7 feet; neap, 5 feet.

WEST CHEZZETCOOK.

West Chezzetcook, Halifax county, is situated on the western side of Chezzetcook inlet, which lies 16 miles east of Halifax. The inlet is from half to three-quarters of a mile wide at its mouth, extends 5 miles inland, and receives the waters of several small lakes at its head. The population of the village is about 700 to 1,000, located in a scattering manner along the western shores of the inlet. The inlet itself, which has an average width of 1 mile, is shallow, with a bottom of mud and sand so that at low water extensive flats are laid bare. There is, however, a narrow, tortuous channel, running to the extreme head of the inlet with a depth of from 6 to 8 feet at L.W.O.S.T., which is used by numerous fishing schooners and other small craft, such as three- and

four-hand fishing boats and skiffs. Owing to the gradual filling up of the entrance to the channel with accumulation of sand, a breakwater or mole was constructed by this department, in 1892, at a cost of $11,160.77 (contract). The work was designed to create scour and deepen and improve navigation facilities at the entrance to the channel; it is built in a westerly direction from the southern end of Conrod's island, which forms the western side of the western channel entering the inlet. At this point the channel from high water to high water was 1,500 feet wide; therefore, from the end of the breakwater to high water is now only 600 feet. This contraction of the channel had the effect of forming a strong current at ebb and flow, and the fine sand along the face of the work was scouring to such an extent as to cause the whole length of the "L" to settle from 4 to 6 feet, and the stem of the work, or the seaward 900 feet, from 2 to 4 feet. This scouring necessitated the placing of a substantial toe of brush and stone along both sides of the work. The breakwater has a total length of 1,100 feet, of which 900 feet is at right angles to the channel, and the remaining 200 feet, or "L", parallel to it. At the southern end of the "L" is a square block 30 by 30 feet which is close sheathed with vertical sheathing 5 inches thick. The rest of the work was ordinary open cribwork, stone-filled, with sides battering 1 in 5 and a top width of 15 feet. Between the years 1895-1910, numerous small expenditures were made in repairs.

In the year 1911, the department expended the sum of $836.15 in making repairs to the outer portion of the work. The sum of $980.75 was also expended in constructing a stone and earth approach to the public wharf on the mainland on the western side of the harbour and in the purchase of timber for the completion of the work during the year 1912-13.

In the fiscal year 1912-13, the department expended the sum of $600.51 in completing repairs to the breakwater, and the sum of $1,119 in the completion of a wharf begun in the last fiscal year. The repairs to the breakwater consisted of raising the outer portion of the work about 2 feet in height, replacing fenders, floor-stringers and planking, and in making other general repairs.

The wharf has a length of 110 feet, a width of 25 feet, and height of from 8 to 20 feet, with an "L" measuring 25 feet by 30 feet, with a height of 20 feet. The approach to the wharf is 100 feet long by 25 feet wide.

During the fiscal year 1913-14, the department expended the sum of $999.76 in repairs to the breakwater. Twenty-five new pieces of sheathing and sixty new fenders were placed. The breakwater was raised 2 feet for a length of 445 feet and a width of 15 feet with new material and re-covered with the old planking.

Work begun in July and ended October 27, 1913.

WEST DOVER.

West Dover, Halifax county, is a small fishing village situated on the Atlantic coast, 38 miles west of Halifax, just east of the entrance to St. Margaret's bay, with a population of 400.

The department, in the fiscal year of 1913-14, expended the sum of $2,131.86 in the construction of a solid native timber cribwork wharf, 65 feet long, 50 feet wide and having an average height of 18 feet.

The work was begun in October and finished the 8th of December, 1913.

WESTERN SHORE.

Western Shore, Lunenburg county, is situated on Mahone bay, 9 miles southeast of Mahone, 3 miles east of Martins river, and 1 mile west of Gold river. It is a station on the Halifax and Southwestern railway, and has a scattered population of about 200, engaged chiefly in farming and lumbering. Many of the men are employed in the summer months on bank fisheries.

In the fiscal year 1912-13, the sum of $508.69 was expended in the construction of an approach for a wharf which it was proposed to construct. The approach measured 70 feet in length, 20 feet in width, and 9 feet high at the outer end.

The sum of $1,892.25 was expended in the purchase of timber in readiness for construction work in 1913-14.

In 1913-14, the sum of $2,989.96 was expended in the construction of a wharf; the work done is 380 feet long, 20 feet wide, and has an "L" 50 feet long by 30 feet wide, with an average height of 18 feet.

Work begun in June and ended October 13, 1913.

WEST HEAD.

This headland is the westernmost point on Cape Sable island, and is situated about 2 miles from Clarkes harbour. It is at the southwest end of Barrington Passage, and is an important fishing section. Owing to its situation, it is the most convenient and easiest point of approach for the coasting steamers which require the use of the several small ports of call on that island. As it is in such an exposed position, a combined breakwater wharf was the only work which would accommodate the shipping and, at the same time, adequately protect the boats or vessels which might be loaded or lying along its sides. Between the years 1907-9, the work was constructed. It consists of a rock bank 100 feet long, 24 feet wide on top, and 247 feet in length of solid continuous cribwork, the first 207 feet being 20 feet wide on top, whilst the latter 40 feet is 50 feet wide. It has a height at the outside end of 28 feet.

During the past fiscal year, $1,872.44 was expended in constructing a barrier along the front of this wharf, and in procuring of material necessary for the lengthening of the head an additional 20 feet. The work was commenced on October 27, and ceased on November 28, 1913. The break was constructed of 12- by 12-inch square timber, 6 feet above the top of the wharf on the outside face of the same, and supported by piles 14 feet long for every 5 feet of its length. The material for the extension was also procured, but as it was late in the season, the construction of it was postponed. Spring tides rise 12 feet; neap, 9 feet.

WESTPORT.

Westport, Digby county, is a thriving village of about 700 people, engaged in fishing and farming, situated on the northwest end of Briar island, on the southeast side of Grand Passage, 40 miles southwest of Digby Gut. The annual value of the fishing catch is between three and four hundred thousand dollars. Westport is a port of call for a subsidized steamer plying between St. John, Yarmouth, and other ports in the Bay of Fundy.

The sum of $16,770 was expended in 1911-12 by the department in building, by contract, a wharf or pier of pilework. The structure is 396 feet long, with an "L" at the outer end, giving a face length of 75 feet, and a depth of water along the whole front of 12 feet at L.W.O.S.T.

On the south side of the wharf is an inclined slip or ramp, 10 feet wide, with a slope of 1 in 9, terminating in a level platform, 20 feet long, 5 feet above L.W.O.S.T. In the angle of the "L" is a combined freight shed and waiting room, 31 by 19 feet. In the outer 226 feet in length of the wharf, the whole of the bearing piles are of Virginia loblolly pine, impregnated with 14 pounds of creosote to the cubic foot. All the piles in the rest of the structure are of native timber. The caps, braces, stringers, and guard timbers are of Georgia pine.

In 1912-13, the sum of $167.88 was expended in constructing a bulk-head, or wave breaker, of 5-inch plank, along the outer face of the pier, and a flight of steps in the angle of the "L."

In 1913-14, the sum of $19.09 was expended in the construction and placing of a ladder on the face of the wharf, to facilitate the landing from steamers and other craft at low water.

WEST PUBNICO.

West Pubnico, Yarmouth county, is situated 30 miles southwest of Yarmouth. Pubnico harbour is about 6 miles long, from mouth to head, lying due north and south, and three-quarters of a mile to a mile and a half wide.

On the west side of the harbour and about 3 miles above its mouth, a wharf was built by the department in 1885-6-7. The work consists of a stone and gravel causeway or embankment, 285 feet long, followed by a pile-work wharf, 230 feet long, 25 feet wide, and from 10 to 14 feet high.

Between 1908 and 1913, several expenditures were made by the department in repairs, renewals, and extensions.

In 1913-14, the department expended the sum of $1,400 in renewing 100 feet in length of the floor of the wharf, including stringers, covering and guard timbers. The work was satisfactorily completed.

WEYMOUTH.

Weymouth, Digby county, population about 1,200, is the second important town of Digby county, situated 20 miles southwest from Digby, the county town. It is an important station on the D. A. Ry., 170 miles from Halifax, 47 miles from Yarmouth. It is on the Sissiboo river, 3 miles above its mouth.

In the fiscal year 1913-14, the Halifax Dredging and Construction Co., in continuation of their last year's contract, removed by their spoon dredge *Ferguson*, 58,697 cubic yards of sand, gravel, and mud, scow measurement, in widening the channel at the mouth of the river to a width of 100 feet and a depth of 8 feet at L.W.O.S.T. The work was begun on the 2nd of May, and completed on the 13th of October, 1913. Its object was to improve the channel on account of large sailing vessels that loaded lumber for the South American market at the wharves immediately below the highway bridge.

WHITE POINT.

White Point, Queens county, is a fishing settlement about 6 miles west of Liverpool, having a population of from 300 to 400 people, most of whom are engaged in fishing. The breakwater, constructed by the department about thirty years ago, was not high enough to protect the inside, which is used by the fishermen for a landing. This breakwater was repaired during the last fiscal year, but owing to general conditions, it was not considered tenable for a much longer period. It was decided that in reconstructing this work, permanent material had better be employed.

During the last fiscal year, the amount of $3,803.31 was expended in constructing a cement and stone breakwater, similar to that at Summerville, Hunts Point, and other places along this shore. This work, when completed, will be 15 feet wide on top, 160 feet long, with a short approach 35 feet long and 8 feet wide, which former approach belongs to the old work. Work was commenced on July 23 and completed on December 17, 1913; 104 feet in length of the breakwater was constructed, leaving 56 feet yet requiring construction, the inside wall is practically plumb, while the outside wall has a batter of ½ to 1. Spring tides rise 7 feet, neap, 4½ feet.

WHITES COVE.

Whites Cove, Digby county, is a settlement of about 100 people, engaged in fishing and farming, situated on the shore of St. Mary's bay, about 5 miles south of Weymouth.

In 1903-4, the department expended $1,804.63 in extending and repairing an ancient cribwork wharf. The new block is 38 feet square and from 18 to 20 feet high, substantially built of round-log cribwork. The next 100 feet in length, shoreward, was also taken down and rebuilt, and the whole wharf, 260 feet long, was levelled up with gravel.

From 1904 to 1912, several expenditures were made, a full account of which can be seen in the departmental report for 1911-12.

In 1913-14, the construction of a protecting detached breakwater was undertaken. The work, which is satisfactorily completed, is 70 feet long, 30 feet wide on top, and from 18 to 21 feet high, substantially built of native timber, filled with ballast, and provided with a break on the seaward face, 4½ feet high.

The total expenditure for this work was $3,934.65.

WHITEWATERS.

Whitewaters, Kings county, is a small farming and lumbering settlement of about 200 people, situated on the west coast of Minas Basin, about three-quarters of a mile south of Cape Blomidon, and 10 miles northeast of the village of Canning. In 1897-98, the department built a public wharf at a cost of $3,999.08, by day labour. It is 285 feet long, 20 feet wide with an "L" at the outer end 35 feet long, where at high water ordinary spring tides there is a depth of 17 feet of water. The wharf is constructed of block and span work. The blocks are solid cribwork, 19 feet long, in the stem of the wharf, the spans being 14 feet in clear opening.

From 1901 to 1913, several expenditures were made, a full account of which can be seen in the departmental report for 1912-13.

In 1913-14, the sum of $149 was expended in the construction of a piece of cribwork for the protection of the approach to the shore end of the breakwater, 20 feet long, 10 feet wide, and 13 feet high. The work was satisfactorily completed.

WHITNEY PIER.

Dredging.

Whitney Pier, Sydney, Cape Breton county, is a large residential and manufacing district, at the extreme northern end and within the limits of the city of Sydney. All the different plants of the Dominion Steel and the shipping piers of the Dominion Coal and Steel Company, as well as many other industries, are located in the district.

During 1908-9-10, the department constructed a public wharf 620 feet in length, and extending to only 6 feet at low water, as it was not advisable to extend it to a greater depth, for fear of exposing the outer end to the heavy pressure of running ice in the spring. In order to make the wharf available for small vessels at all times of tide, on July 10, 1912, a contract was entered into with the Costal Dredging and Construction Co., Ltd., of Sydney, for the dredging of the approach to the wharf, to a depth of 11 feet at low water. Spring tides rise 5 feet.

The company's dredge *Cadeco* commenced operations July 9, 1912, and continued until August 20 following, when the amount of dredging contracted for was completed by removing, during that period, 25,006 cubic yards, scow measurement, of sand, gravel, hardpan and layer rock, at 34 cents per cubic yard, plus 3 cents per yard for extra towage, and in overcasting 654 cubic yards of

sand and hard pan at 22⅔ cents per cubic yard, but owing to the presence of solid rock at the outer end of the wharf, the depth required could only be carried into within 50 feet from its outer end. The work done covered an area of about 260 feet in length and of an average width of about 325 feet.

As the depth of 11 feet at low water was considered insufficient for the accommodation of the fast-increasing business of the district, it was decided not only to complete the dredging to 11 feet of water commenced during 1912-13, but to increase the whole area to a depth of 16 feet at low water.

The Government dredge *Cape Breton* commenced operations on October 27, 1913, and continued until November 27 following, when the work was suspended for the winter. During that period, the dredge removed 10,075 cubic yards, scow measure, of sand, clay, and shale rock; the work performed consisted in dredging to 12 feet at low water within 15 feet of outer end of wharf, and on the southern side of its outer end for a distance of 100 feet inwards, in a width of about 80 feet, and in cutting a channel to 16 feet at low water, 420 feet in length, and 60 feet in width on the southern edge of the proposed work.

WHYCOCOMAGH.

Whycocomagh, Inverness county, is a village on the north side of a bay of the same name at the head of St. Patrick's channel, an arm of the Bras d'Or lake.

A private wharf, with a warehouse and right of way to the public road, was purchased in 1897-8, and repaired and extended in 1898-9, and 1899-1900. The wharf was then 228 feet long, including 144 feet of stonework, 21 feet wide, and 84 feet of pile-work, 25 feet wide over 59 feet of its length and 60 feet wide over the outer 24 feet, built over the remains of an old block and span structure.

During 1902-3-4-5 and 1907-8, expenditures were made in slight repairs to the wharf, warehouse and approach.

During the fiscal year 1910-11, the sum of $2,398.11 was expended in nearly completing a triangular pile-head, 78 feet long, on channel face by 83 feet in line of work, to replace a pile-head which was in a dilapidated condition. Depth along channel face, 12½ feet at low lake level.

During 1911-12, the sum of $565.90 was expended by day labour in completing the work in progress during the preceding year. The work done consisted in the placing of about 2,000 feet, b.m., of covering, 18 fender piles, 2 mooring piles and about 3,000 feet, b.m., of chocks.

During 1913-14, the sum of $522.80 was expended in repairs to the stone approach to the wharf, in repairs to the old warehouse, in the construction of a small warehouse, 10 by 12 feet, at the outer end of the wharf, and in the construction of a motor-boat landing on the western side of the inner end of the wharf.

Dredging.

The wharf extends to about 10 feet at low water and is the landing place for two subsidized steamers and for a number of schooners carrying coal to, and lumber or farm produce from, this port. Of the two subsidized steamers, one makes tri-weekly trips between this port and the Sydneys, via Bras d'Or Lake ports, and the other calls weekly on her way from Halifax to the Sydneys.

The depth of water at the wharf and in front of it having been found too shallow for the business of the port, it was decided to deepen it to 13 feet at low water, around the sides, for a distance of 100 feet, in a width of 100 feet, and form a basin 300 feet by 300 feet in front of the wharf, and in a channel, 400 feet long by 100 feet wide, and a contract was entered into with the Atlantic Dredging Company, Ltd., of Louisburg, for the removal of 27,000 cubic yards scow measure at 19 cents per yard.

On September 25, 1913, the dredge *Pepperell* commenced operations and continued until November 6 following, when the work specified was completed by the removal of 27,058 cubic yards of muck, at a cost of $5,141.02. It having been found that a bar existed outside of dredged channel, with less than 13 feet of water, an arrangement with the Atlantic Dredging Co. was made for an extension of the channel to 13 feet at low water for a distance of 700 feet, involving the removal of 11,800 cubic yards, scow measure, of material.

Operations were resumed by the company on November 21, and continued until December 19, 1913, when the amount agreed upon was removed, but the work was not quite completed; as the ice was forming, at the time, the work had to be suspended.

WINDSOR.

Windsor, Hants county, is one of the most important shipping ports in Nova Scotia, and is situated on the Avon river at the head of Minas Basin. The industries of the town employ about 400 hands, and about 100,000 tons of manufactured plaster are shipped annually. The population is about 3,500.

To provide berths for vessels in front of the wharves, and to preserve a depth of 20 feet below top of wharfage, 4,200 cubic yards of mud were removed between August 4 and September 25 by hand digging, at a cost of $2,520.

WOODS HARBOUR.

Woods Harbour is a settlement some 5 miles in length about 10 miles west of Barrington Passage. It has a population in all of about 1,400 people, and is divided into Upper, Central and Lower Woods Harbour. Lower Woods Harbour, where the work was performed, is the upper portion of this settlement. It has about five stores, two churches, a three-roomed school-house, and a hall. About 600 people are located in this portion of the settlement, and about 80 motor-boats utilize the harbour; their value would be in the vicinity of $2,500, and there are two small steamers and three schooners ranging from 80 to 100 tons burden; the value of the steamers and schooners would be about $30,000. The nature of the work was the removal of a dangerous ledge known as Barrel rock, which was located in the centre of the channel, immediately south of the harbour light. The whole ledge was not removed, but the water over the top of the rock was deepened 4 feet, so that the channel is now navigable at all times of tide by motor-boats. Work was commenced on August 8, and completed on October 14, 1913. During that time, 597 cubic yards of stone were removed, making the cost per cubic yard $6.60. One cubic yard of this stone equals 2 tons, so that the cost per ton was in the vicinity of $3.30. The nature of the material removed consisted of granite. Spring tides rise here 11 feet; neap, 7 feet.

WOLFVILLE.

A wharf was built by the department in 1900, destroyed in 1904 and rebuilt in 1905-6. It is now in very bad order and is almost a total wreck.

In June, 1914, a wharf, rock filled, 70 by 30 feet with a coal house 25 by 55 feet, and a piece of land containing about 0·59 of an acre was purchased from R. E. Burgess for the sum of $3,200,but as there was a restriction in a former agreement, the property is being expropriated.

The wharf and property were transferred to the control of the Department of Marine and Fisheries on 26 September, 1914.

YARMOUTH.

Yarmouth Bar, Yarmouth county, the harbour lies about NNE. and SSW. (true), and from the upper wharf to the mouth of the harbour is nearly 4 miles. At

about the middle of its length, and for a distance of about three-quarters of a mile, it is protected from the main waters of the Bay of Fundy by a beach of gravel and shingle, connecting Cape Forchu, an island, or more precisely, a peninsula, with Stoney point, the southern extremity of the mainland, forming the western side of the harbour.

In 1867, the Provincial Government began the construction of a beach protection work at Stoney point, and between 1873 and 1875, the Public Works Department built the remaining thousand feet to reach the north end of Cape Forchu.

Since 1875, the department has made numerous expenditures in repairs, renewals, and extensions, full particulars of which will be found in the departmental reports for 1911-12 and 1912-13.

In 1913-14, the sum of $71.84 was expended on the renewal of about 1,000 feet b.m. of planking, and the respiking of other planking.

PRINCE EDWARD ISLAND.

ANNANDALE.

Annandale, Kings county, is situated on the north side of the Grand river, near its entrance to Boughton bay, and is one of the Prince Edward Island piers assumed by the Dominion Government in 1883-4; its dimensions, construction, etc., and different expenditures made thereon, being fully described in departmental reports 1906-7 and 1912-13.

The middle section of the covering of pier head was, in 1912, put in good repair, but it was found necessary, during present season, undertaking the repair of the adjacent portion to the eastward; the work being commenced November 27 and completed December 4, at a cost in all of $284.72.

BONSHAW.

Bonshaw, Queens county, is situated at the head of navigation for small boats on the West river, about 15 miles from Charlottetown, and is the centre of a thickly settled district; the road approaches to which, from Charlottetown, being very hilly, a large portion of the heavy freighting in and out is being done by motor-boat from Bonshaw. Use was formally had of the old public road bridge for shipping purposes, but since latter has been replaced by a steel span, impossible of such use, the required facilities were supplied by the department as described in departmental report of 1912-13.

Its approach, however, on the upper part of the river, being very shoal, necessitating long waits for sufficient tide, some dredging was requested, and, during the past season, about 1,200 snags, stumps, logs and considerable mud, etc., was removed by hand; this proving so satisfactory as to allow fully three hours longer use of the tide. The work was commenced July 14 and was carried on as tide and weather permitted up to September 30, 1913, the total expenditure being $367.57.

BELFAST.

Belfast pier, Queens county, also known as Halliday's wharf, is situated on the south side of Orwell Bay, about 1 mile from the village of Eldon. Its construction, dimensions, uses, etc., as also repairs and extension made thereto by the department since its control was assumed by the Dominion Government in 1883-4, are fully described in departmental report of 1905-6. During the present season, October 1 to 31, the western portion of the return or pier head was strengthened by piling, and the ballast, floor-stringers, covering, etc., were renewed.

The total expenditure was $341.62.

BELLE RIVER.

Belle river, Queens county, is situated on the south side of the island about 4 miles from Wood islands, and 6 miles east of the entrance of Pinette harbour. The harbour works are located at the mouth of the Belle river, and were commenced by the Provincial Government many years before Confederation; they consist of breakwaters on either side of the entrance, and two small shipping piers some distance within. The accommodation given by the latter not being deemed sufficient, the department, at the request of the shippers, merchants, and residents of the district, during the season of 1912-13, constructed a small wharf 60 feet long and 22 feet wide on the north side of the river or harbour, a distance of 530 feet inward of the north breakwater. During the past season, the breakwaters were each extended inwards a distance of 200 feet, in order to protect the channel from the constant drift of sand of the low-lying, surrounding beaches. The work was commenced June 23, and completed November 11, 1913, at a cost if $3,599.45.

CHARLOTTETOWN.

Charlottetown, Queens county, the capital of the province of Prince Edward Island, with a population of about 12,000, is situated on the north bank of the East or Hillsborough river, near its junction with the North and West rivers, here forming one of the finest, land-locked harbours in North America, capable of accommodating any number of ships of the largest class. During the season of navigation, the harbour is frequented by many vessels employed in both foreign and coastwise trade. For the year ending March 31, 1912, thirty-five foreign steamers entered and seventy-one cleared, 521 coastwise entered and 521 cleared, while the number of foreign sailing vessels entering numbered 564, and 592 cleared. There are also registered in the province about 149 sailing vessels and twenty steamers. On representation being made to the department of the delay and loss of time, owing to there being no slip in the harbour where these vessels may be hauled out for repair, the necessary survey and investigation was made and a report submitted March 19, 1913, regarding the feasibility of a marine slip that would accommodate vessels up to 3,000 tons; the approximate estimated cost of such a work being $145,000. During the past summer, a further detail survey, including test borings, was undertaken and the site selected to the east of the Southport wharf, directly opposite the city. The necessary land amounting to 6⅞ acres having been purchased from Mr. W. Perley Mutch, tenders were called for the dredging required in connection with approach and foundation, this involving the removal of approximately 130,000 cubic yards of mud and clay, was awarded to Mr. V. T. Bartram, of Toronto, at the rate of 28 cents per cubic yard, place measurement. Operations will probably begin latter part of May or early in June.

Dredging.

The dredge *Prince Edward* having wintered at Charlottetown, and undergone repairs, commenced operations at the "Plant Line" or "Pickard's" wharf, June 12, completing by September the removal of 29,375 cubic yards (scow) of mud, forming a berth on the east side of the wharf 350 feet long by an average width of 95 feet, giving from 18 to 20 feet of water at low water spring tides on the outer part; the inner 100 feet grading up to 14 feet at low water spring tides; the dredge then proceeded to "Pownal wharf," forming a berth on its west side about 375 feet in length by about 60 feet in width, and carrying from 18 feet at the outer end up to 11 feet at inner; work was commenced September 9, and completed October 15, removing in that time 8,950 cubic yards (scow) of mud; the *Prince Edward* then proceeded to Buntain, Bell

& Co's wharf, forming a berth on the eastern side 450 feet in length by 40 feet in width, carrying 19 feet at low water spring tides on the outer end, grading up to 12 feet on the inner end, removing 5,300 cubic yards of mud between October 16 and November 8, and then left for Mount Stewart. The same dredge having returned December 1, commenced operation on east side of Steam Navigation Co's wharf and continued working until December 16, when 3,800 cubic yards of clay and shelly rock had been removed, forming a berth about 200 feet long by 50 feet in width, giving 10 feet at low water. The dredge *Montague* commenced, October 23, on the berth occupied by the C.G.S. *Earl Grey* on the eastern side of the Marine and Fisheries wharf, 350 feet long and 80 feet wide, carrying about 20 feet at L.W.S.T., 4,600 cubic yards (scow) being removed by November 3, when operations were completed.

CARDIGAN RIVER SOUTH.

Cardigan River (South), Kings county, is situated on the south side of the Cardigan river, a short distance above its entrance into Cardigan bay, and distant by land about 1½ miles north from Georgetown, or 6 miles by water; a wharf was constructed by the Provincial Government many years ago, but having become unserviceable, and the Provincial Government unwilling to effect repairs, was then transferred to the Dominion Government, who entered into a contract, October 28 last, with the Annandale Lumber Co., Ltd., for the sum of $9,637, to construct the present wharf 315 feet long, construct extension 40 feet, a pier head 70 feet, and two guide piers, each 90 feet in length by 20 feet in width, all of pole work foundation and close-face square timber superstructure. Work was commenced February 16 on pier head, 70 feet in length.

Dredging.

As the specification for the above wharf included the dredging of the foundation for guide piers, approach, etc., by the department, authority was given for the *Montague* to undertake the work. This dredge commenced operations on November 19, and by January 2, when winter quarters were taken up, 4,800 cubic yards of the 12,000 cubic yards authorized had been removed. The material consisting of hard sand, brick clay, and some remains of the old wharf. Operations were confined entirely to the area required for the foundation of guide piers. The balance of the work, or that necessary in connection with improvement of approach, will be undertaken immediately navigation opens.

CARDIGAN RIVER.

Dredging.

The village of Cardigan Bridge, Kings county, is situated at the head of navigation on the Cardigan river. Here are situated the wharves used in the shipment of the surplus farm produce of the surrounding districts amounting annually to some $40,000, as also import of coal, lumber, limestone, general merchandise, etc., amounting to almost as much more, or about $70,000 to $75,000 in all. From the Dominion Government wharf, known as Lewis's Point wharf, situated about a half mile below the bridge, the channel being narrow and crooked, in places partially obstructed by protruding shoal points, makes the approach of the different wharves difficult for vessels of the larger class. The departmental dredge *Montague* commenced dredging on November 19 and completed a channel on December 5, during which time 8,300 cubic yards, scow measurement, of mud and sand were removed, the average length of cut being 1,400 feet by 40 feet wide, giving 10 feet at low water spring tides, or 15 feet at high water spring tides, that here rise 5 feet.

FRENCH RIVER.

French River, Queens county, is situated at the head of navigation of the French river, which empties into the western side of New London bay, and is distant by road about 10 miles north from Kensington station on the line of the Prince-Edward Island railway.

The old wharf, built some twenty years ago, and known as Simpson's wharf, was purchased by the department for $300 and its reconstruction commenced September 16. Work was carried on continuously until October 31, when it was completed at a cost of $2,480.37. It has a total length of 224 feet, the outer portion 70 feet in length, carried on bearing piles, capped, floor-stringered, and planked over, being 32 feet wide, while the approach 154 feet in length and 20 feet wide, has pole foundation and close-face square timber superstructure, and the roadway is built of broken stone and gravel.

FRANKLIN POINT.

Franklin point, Queens county, within Charlottetown harbour, is situated on the west bank of the North river, near its confluence with the East or Hillsborough and the West river. For accommodation of lots 30, 31, and 32, and generally of the southwestern portion of Queens county, a contract was entered into December 5, 1912, with Messrs. Harvey D. McEwen, Kimble Coffin, and Kimble Webster, for the sum of $24,990, for the construction of a wharf having an approach 540 feet long, and guide piers of dock 110 feet in length by 24 feet in width.

The approach has a pole foundation with superstructure of 12-inch by 12-inch timber; the guide piers being constructed entirely of 12-inch by 12-inch close-face timber, the longitudinal and cross ties being timber 12 inches in diameter. The work is to be fully ballasted, and the roadway to be built with broken stone and gravel, excepting the middle section, 158 feet in length, forming approach to slip, which is floor-stringered and planked over.

Work was commenced May 8, and carried on continuously up to November 30, when suspended for the season; the completed work consists in the construction of about the whole work, excepting top portion of the north guide pier which still requires five tiers of face timbers and ballast; inner faces of guide piers also require sheathing, etc.

GEORGETOWN.

Georgetown harbour, Kings county, is situated on the southwest side of Cardigan bay, about 3 miles within Panmure island, and is one of the finest harbours in the southern part of the gulf of St. Lawrence, next to Charlottetown harbour, and having depth of water and space to shelter vessels of the largest class. The wharf known as the Queen's wharf, described in departmental report 1901-2, having been found defective in the covering and floor-timbers of spans, and some settlement and washout occurring in the clay roadway, its repairs were effected; new sidewalk and hand-rail were built, and the western wall of approach was reconstructed, the work being commenced July 17 and carried on until September 2, when satisfactorily completed, the cost being $896.37.

Dredging.

During the month of January, 1913, the departmental dredge *Montague* worked one-half day at approach to wharf of A. A. McDonald & Co., removing 600 cubic yards of mud, and again a portion of two days, during the past season, August 21 to 23, when 700 cubic yards of mud were removed

GRAND RIVER (SOUTH).

Grand River (South) is situated on the south side of the Grand river, Prince county, near its entrance into Richmond bay. The wharf was originally built by the Provincial Government, about eighteen years ago, with the intention of providing shipping facilities for the district. The work, of very indifferent construction, shortly became so injured as never to be of use for shipping purposes. To provide accommodation, a contract was entered into September 20, 1911, with Mr. Roderick McNeill, for $6,499, for its repair and reconstruction; the portion of the work done in 1912 being as described in departmental report 1912-13.

Construction was again resumed last summer and carried on at different times until its completion on October 4, 1913.

The value of the work done during the fiscal year was $1,959.

Dredging.

The wharf extends out to the channel's edge over shoal flats, and in order to provide a berth for shipping at its side, some dredging was necessary. This was performed by the departmental dredge *Pownal,* which worked October 8 to November 7, removing 4,650 cubic yards of mud and sand, scow measurement, providing a berth 200 feet long, 50 feet wide, and carrying 8 to 10 feet at low water spring tides.

KIER'S SHORE, MALPEQUE.

Dredging.

Kier's Shore, Malpeque, Prince county, is situated on the eastern side of Richmond bay, on the north side of the island, about 7 miles north from Kensington, a village and station on the line of the Prince Edward Island railway, its dimensions, construction, etc., being as fully described in departmental reports of 1899-1900 and 1906-7. During the past season, the departmental dredge *Pownal* commenced operations on November 13, clearing out the outer part of dredged channel, formed in 1911 by departmental dredge *Montague:* work was continued up to the 19th of the same month, shortly after which she was removed to Charlottetown for winter quarters and repair, having only removed 1,250 cubic yards, scow measurement, of mud and clay.

LEWIS POINT.

Lewis Point pier, Kings county, is situated on the north side of the Cardigan river, a short distance below Cardigan bridge, the head of navigation, and is about 6 miles from the entrance of the river into Cardigan bay. The pier is 575 feet long, being composed of a shore abutment, 365 feet in length, two intermediate blocks, each 35 feet long, and an outer block 79 feet in length, with intervening spans, each about 20 feet wide, out to the outer block, which is about 33 feet wide.

The outer part, owing to decay of covering and floor-stringers having become unsafe, their repair was effected.

Work was commenced October 21, and satisfactorily completed November 8; the total expenditure being $158.22.

LITTLE SANDS.

Little Sands, Kings county, is situated on the south side of the island, and north coast of the Northumberland strait, about 8 miles west of Cape Bear and 4 miles east of Wood Islands harbour. It is a small indentation in the general coast line, having little natural protection. To afford accommodation and shelter for fishermen, also for a number of small boats that carry on traffic, at certain seasons of the year, between

Little Sands and Pictou island, a survey was made during the early part of the season, and contract plans and specification forwarded to the department. The necessary right of way and approach having been acquired from Mr. Angus McLean for the sum of $250, tenders were called for a close-face 12 by 12-inch timber crib wharf, 240 feet long by 30 feet wide, carrying 8 feet at low water spring tides at its outer end.

An Order in Council was passed January 13, 1914, authorizing the acceptance of the tender of Messrs. Phillips, Mutch & McLean; the work, to be done upon unit price basis, will cost approximately $17,468. Materials are now being arranged for with a view of making commencement soon after the departure of the ice from the coast.

LOWER MONTAGUE

Dredging.

Lower Montague, Kings county, is situated on the southern shore at the mouth of the Montague river, being distant, by water, about 1 mile southwest of Georgetown. The place is supplied with three wharves, viz., one the property of the Local Government, used for ferry purposes but of no use for shipping; one the property of the Dominion Government, and one privately owned by W. A. Poole & Co.; as all the shipping is done from the latter, and is visited by subsidized steamer, some dredging was found necessary, in order to provide sufficient berth room for vessels and steamer. This work occupied the departmental dredge *Montague* one day, and being considered of a private nature was paid for at the rate of $115. The work required for the accommodation of subsidized steamer being of a public nature, was undertaken and completed in three days by the same dredge; in all, there being removed 4,000 cubic yards of mud and brick clay, from August 14 to 20.

M'CAULEY'S WHARF.

McCauley's wharf, Queen's county, is situated on the north bank of the Pinette river, near its entrance into Northumberland Straits. The wharf was constructed by the Local Government many years ago, but its repair having been neglected of late years, it had become a complete wreck. The need of shipping facilities being felt at the place, the department has undertaken its reconstruction, and entered into a contract with the Annandale Lumber Co., Ltd., on October 28 last, in the sum of $7,438, for the reconstruction of the wharf as follows: Approach, 625 feet long by 20 feet wide, having close-laid pole-work foundation, square-timber superstructure, and clay roadway; and pier head 50 feet by 30 feet, pole-work foundation, square-timber superstructure, floor-stringered, planked, and close-piled; the work to extend out to the edge of the channel. Materials are now being arranged for, the work will be commenced shortly after departure of ice from the coast, probably about the 1st of May.

MONTAGUE RIVER.

Montague village, Kings county, is situated at the head of navigation of the Montague river, and terminus of the Montague branch of the Prince Edward Island railway; it has a population of about 1,000, and is surrounded by a richly settled district, having fully as many more directly interested in the place as a shipping point, and is one of the busiest centres on the island in the spring and fall; a large number of schooners of from 50 to 200 tons visit it for cargoes; it is also a port of call for ss. *Enterprise* and *Swansea Trader,* plying between Prince Edward Island, Cape Breton and Nova Scotia.

To provide accommodation for shippers generally, a warehouse was constructed on the Government or Lambert's wharf; it consists of a frame building 24 by 40 feet, with 12-foot post, single roof and sides battened, costing in all $552.76. The work was done from 21st July to 11th September, 1913.

Dredging.

The dredge *Montague* was employed during the season of 1912, in improving depth of water and forming shipping berths at the wharves, removing in all 44,500 cubic yards, scow measurement, of mud and sand.

For further improvement in depth of water and width of river's channel the dredge *Montague* was employed the past season from April 30 to August 9 in removing 54,300 cubic yards, scow measurement, of mud and clay, forming a channel approach to wharves 3,800 feet in length by 100 feet wide, carrying 12 feet at low water spring tide.

Included in the above is work of a private nature amounting to 1,000 cubic yards, removed at Messrs. Poole & Thompson's wharf, for which the department received payment at the usual rate of $115 per day for dredge and plant: the time occupied at the wharf being seven hours.

MOUNT STEWART.

Dredging.

Mount Stewart, Queens county, is situated at the head of navigation of the Hillsborough, about 18 miles east of Charlottetown. The village has a population of about 500, the surrounding districts being all thickly settled, and are interested in improvement of shipping facilities at the place, for accommodation of which suitable wharfage was provided, as described in departmental reports 1908-9-10; the channel, however, approaching the village and wharves, only carrying about 2 feet at low water spring tides, here rising 10 feet, its improvement was commenced in 1911, in commencing a channel 100 feet wide for a length of 4,500 feet, to carry 6 or 7 feet at low water spring tides, to 16 feet at high water spring tides. The work was undertaken by the departmental dredge *Prince Edward*, which also continued the work during season of 1912, completing about half the required width; for continuance of which the *Prince Edward* again commenced operations November 12, working up to the 29th of that month, when she was removed to Charlottetown. During her stay at Mount Stewart she removed 4,000 cubic yards, scow measurement, of sand and clay, widening the south side of the channel at its lower end by a cut 25 feet in width for a distance of 930 feet, to 6 feet at low water spring tides.

MURRAY HARBOUR.

Dredging.

Murray harbour (South river) is situated at the southeastern extremity of Kings county, the river empties into Northumberland strait, and drains a very rich agricultural country. The channel of the South river, immediately within the harbour, is narrow and winding, in places being partially obstructed by shoal, projecting points. Considerable improvement was done on this, on the upper part of the river, from what is known as the Narrows to the Bridge, some twenty years ago by the departmental dredge *Prince Edward*, the channel being straightened and deepened. Of late years, however, this has been gradually silting up, and the lower part had become more difficult of navigating: for improvement of which a contract was entered into June 16 last, with Mr. V. T. Bartram, for the removal of 58,000 cubic yards, scow measurement of sand and clay, at 24 cents per cubic yard: work commenced with the dredge *E. B. No. 1* on July 15 and continued up to the end of August, when 24,457 cubic yards had been removed. The dredge was then removed by the contractor to the north

side of the island, but was lost on the way, since when the work at Murray harbour has not been continued. Mr. Bartram has had a dredge at Charlottetown for some time, but encountering very heavy weather on the way, arrived in an unfit condition to proceed with operations.

NAUFRAGE.

Naufrage, Kings county, is situated on the north coast of the island, about 20 miles west of East Point and 15 miles east of the entrance into St. Peter's bay, while by road it is distant about 13 miles directly north from Souris. Description of the pond, and as to what has been done by the department towards formation of a small boat harbour at the place, is fully described in the departmental reports of 1909-10-12. Owing to the heavy seas breaking through the low portion of the beach to the west of the harbour, carrying sand, etc., into the pond, to prevent which a round-log beach protection work 100 feet long, with plank roadway on top, was constructed, connecting the west work with the high land. The temporary bridge to accommodate traffic over the run, and giving communication between the two piers, was replaced by one with an opening for boats, having two lifts provided with suitable hand winches on either side. Work was commenced June 23, but was not carried on continuously, being, however, completed by December 10. The total expenditure for the fiscal year being $1,344.97.

NEW LONDON.

New London harbour, Queens county, is on the north coast of the island, about midway between the entrance to Richmond bay on the west and Rustico harbour to the east. The bay is about 3 miles long and nearly as broad, receiving the waters of the French, Southwest, Stanley, and Hope rivers, west to east in the order named; all navigable for at least short distances, and having wharves or shipping places, all giving shipping facilities to rich agricultural districts, the harbour also serving as a refuge to fishermen using the waters in the vicinity, being convenient to some of the best fishing grounds in the Gulf of St. Lawrence. For the improvement of its entrance, which is obstructed by a shifting sand bar, works were commenced by the department in 1878, and have since been extended, strengthened, etc., from time to time as described in departmental reports 1908-9 and 1912-13. During the past season, the sum of $1,383.58 was expended in rebuilding a length of 330 feet of the beach protection at the eastern side of the entrance, and effecting the strengthening by piling, etc., the north or seaward side of the outer block. The work which was commenced July 22, was completed November 21.

NORTH CARDIGAN.

North Cardigan, Kings county, also known as Newport pier, is situated on the north side of the Cardigan river a short distance above its entrance into Cardigan bay and, by water, about 5 miles below Cardigan bridge. It is one of the Prince Edward Island piers assumed by the Dominion Government in 1884, since when it has been about completely rebuilt by different repairs and improvements made to it as described in departmental report of 1904-5. During the present season, October 4 to 21, some slight repairs were made to the roadway, and some renewal of covering, putting in a mooring post, etc., at an expenditure of $98.64.

NORTH LAKE.

North Lake, Kings county, is situated on the north coast of Prince Edward Island, about 5 miles west of "East Point," and 2 miles north of Elmira station, the terminus of the Elmira branch of the Prince Edward Island railway.

The lake has a length of about one and a half mile, and is about one-half mile wide at its broadest point, with an extreme depth of 14 feet. The coast is very exposed, no harbour for small boats being available between Naufrage harbour to the west and Souris harbour on the eastern coast. To supply the desired shelter, plans and specifications were prepared for a boat harbour, estimated to cost $34,000; tenders on which, however, have not been asked, some of the residents in the vicinity being unwilling to forego possible claims for damages that might arise through the closing up of the present outlet and consequent sand drift over the shore front of their farms.

NORTH RIVER BRIDGE.

North River bridge, Queens county, is situated at the head of navigation on the North river, being distant by water about 4½ miles from Charlottetown. The surrounding districts are rich in agricultural products, shipment of the surplus of which, as also import of coal, lumber, and limestone, etc., was had by means of the public road bridge, here crossing the river; its replacement by a steel structure, however, prohibited its further use for shipping purposes, and to supply the need so caused, the construction of a suitable shipping pier immediately below the bridge was undertaken by the department during the present season. It was at first intended to proceed by days' labour with the work, but it was found impossible to secure suitable timber in the vicinity at that season of the year at reasonable prices. Tenders were then asked for its construction, and a contract entered into October 28 with Mr. Joseph Hughes for the sum of $3,490; the work to consist of an approach 180 feet long by 20 feet wide of pole-work bottom, square-timber top, and clay roadway, and a pier head 80 feet long by 30 feet wide of similar construction to approach, except that it is floor-stringered and planked over. Materials are now being arranged for, and work will commence shortly after departure of ice from the coast.

PINETTE HARBOUR.

Pinette harbour and river, Queens county, is situated on the north side of Northumberland strait, about 4 miles east of Point Prim, and by water, distant about 20 miles from Charlottetown, and 12 miles west from Wood islands, the most southerly point of the island. At the head of navigation on the river there is a good shipping pier, as mentioned in departmental reports 1899-1900-6, under the control of the Dominion Government.

Repairs were made to the floor-stringers, covering, piling, etc., of the Pinette pier at a cost of $400.85; work being commenced September 6 and satisfactorily completed October 30.

Dredging.

Entering the straits, the river has an obstructing sand bar, carrying only 3 feet at low water springs, or 11 feet at high water springs, that here rise 8 feet, while otherwise it possessed a channel 200 to 500 feet wide, not carrying less than 12 feet at low water, therefore, the traffic is restricted to a small class of vessels.

To improve the depth of water over the bar, the dredge *Montague* removed 16,000 cubic yards of material during season of 1909, forming a channel 1,500 feet long by 60 feet wide on top, and carrying 8 feet at low water, but owing to the sandy nature of the bottom, and to exposure to all southerly and westerly storms, considerable filling in of this cut occurred from time to time. The dredge *Montague* commenced operations September 9 last, on a cut 200 feet in width, when, after removing 11,300 cubic yards, operations had to be suspended October 10, owing to the amount of time lost from stormy weather; the work is to be completed in the early part of next summer when weather conditions are generally more favourable. Length of cut made is 650 feet, width 55 at bottom and depth 10 feet at low water.

PORT SELKIRK.

Port Selkirk, Queens county, is situated on the south side of the Orwell river at its entrance to Orwell bay, being distant from Charlottetown, by water, about 20 miles, communication being had twice weekly by a steam passenger and freight packet. The pier, built many years before Confederation, is in the form of a "T," consisting of a pier head 230 feet long, and 35 feet wide, fronting on the edge of the channel, the approach being 250 feet long by 23 feet wide; all, with the exception of the inner end of the approach being constructed of a series of blocks or spans floor-stringered and planked over. During the season of 1912-13, the eastern end of pier head was raised and strengthened, spans shortened, and top newly floor-stringered and covered. During the past season, the same was effected to western end of pier-head; work being commenced August 25 and completed December 2. The total expenditure being $700.89.

ROBINSON'S ISLAND.

Robinson's Island, Queens county, is situated on the western end of Robinson's island, and on the eastern side of the entrance to Rustico harbour, being built in 1905-6-7 for the purpose, in conjunction with the similar work on the western side, of narrowing the channel, and thus, by increased current, so caused by ebb tides, by scour to improve the depth of water carried on the sand bar obstructing the entrance. The work has in all a length of 750 feet, the construction, etc., of which being as described in departmental report 1908-9. During the past season, the sum of $765.67 was expended in close-piling and general repair of the inner side of the beach protection work, for a distance of 150 feet. The work, which was commenced August 25, was completed October 20.

ROCKY POINT.

Rocky Point, Queens county, is situated on the south side of the West river, near its confluence with the North and Hillsborough rivers, and immediately within the entrance to Charlottetown harbour. The wharf, used entirely at present for ferry purposes, serves the traffic between Charlottetown and the southwestern portion of Queens county. It is the property of the Local Government, but, being very old and not of very heavy construction, its exposed position has cause it to be much out of repair. As a substitute, the department proposed building a structure suitable for both shipping and ferry purposes at a better and more sheltered site a short distance above the present wharf, and where the deep water approaches nearer to the shore, entailing the upkeep of a far smaller quantity of dredging.

Tenders were asked for a wharf 600 feet long, having an approach 325 feet long by 22 feet wide; a pier head 160 feet long, and guide piers 115 feet long. Before acceptance of the tenders, however, objection was raised by the people of the vicinity to the site selected, and it was decided to change the location; an Order in Council being passed 7th March, 1914, authorizing the acceptance of the tender of Mr. Harvey D. McEwan, at the unit prices quoted in this tender, for the construction of a wharf at the present provincial ferry site, entailing an approximate expenditure of $31,749. Materials are now being arranged for with a view of making commencement soon after the departure of ice from the coast.

RUSTICO.

Rustico, Queens county is situated on the northern coast of the island at the western side of the Rustico harbour, one of the island's most important fishing stations. For improvement of the harbour's approach, which is obstructed by a shifting sand bar, the department, during 1881-2-3-4, constructed works on either side of the entrance for the purpose of confining the current at ebb tide, and thus, by scour,

deepen the water. The works, which are as described in departmental reports 1899-1900 and 1908-9, are exposed to heavy storms, the action of the ice, also the ravages of the "teredo" damage the works, and they require constant repair and attention in order to be kept up to strength. During the present season, September 19 to October 27, ballast and covering were renewed, as required at outer portion of work; the total cost being $487.

ST. PETER'S BAY.

St. Peter's bay, Kings county, has its entrance into the gulf of St. Lawrence about 35 miles west from East point, and about 25 miles east from Rustico harbour. The bay is of considerable extent, running inland about 9 miles, with an average width of three-quarters of a mile, carrying a depth of from 2 to 3 fathoms at low water; the entrance, however, like that of all the harbours on the north side of the island, is obstructed by a shifting sand bar, greatly interfering with its use, excepting for boats not over 5 or 6 feet draught; for improvement of which conditions, works were commenced by the department in 1878, and have since been continued from time to time, as described in departmental report of 1909, and by which, from all reports, the water on the bar has been increased fully 2 feet, and the place has otherwise been benefited. During the past season, the sum of $1,163.85 was expended in making up of the ballasting where settlement had occurred in both the eastern and western breakwaters, repairs to the covering, etc., and the repair and raising a length of 360 feet of the western beach protection. Work was commenced 28th August and completed 25th November.

ST. PETER'S BAY (HEAD).

The work was originally built by the Provincial Government many years before Confederation, and is one of the Prince Edward Island piers, the control of which was not assumed by the Dominion Government in 1884, when many others were taken over, and so remained under the care of the Local Government, who of late years has neglected its repair. By 1910-11, it had become entirely useless as a shipping place; in view of this and that the Local Government felt unable to effect its repair, an appropriation of $5,000 was made by Parliament for repair and reconstruction. Tenders were called and a contract entered into, February 5, 1913, with the Annandale Lumber Co., Ltd., for the bulk sum of $3,993. Work was commenced April 22, and carried on continuously until August 9, when it was satisfactorily completed. The work has a total length of 429 feet; the approach, 365 feet in length, is built of close-face 12 by 12-inch timber, fully ballasted, with a roadway on top formed of broken stone and gravel. While the pier head is 64 by 38 feet, and is carried partly on creosoted bearing piles, capped, floor-stringered and planked over, and the sides and ends are close-fender piled.

SOURIS.

Souris, Kings county, is situated on the northeastern coast of Prince Edward Island, about 16 miles southwest of East Point, and is most important as a harbour of refuge and place of shipment, for both of which it has been rendered available by the breakwater built and maintained by the Dominion Government, as described in departmental reports of 1899-1900 and 1908-9.

To enlarge the harbour area, both in the interest of the general business of the place and to afford better refuge for coasting vessels, a contract was entered into October 18, 1912, with Messrs. Beazley Bros., of Halifax, N.S., for the sum of $143,917, for the construction of a 400-foot extension to the breakwater, to be of close-face square-timber work; the portion below half tide being of creosoted timber, all full ballasted, floor-stringered, and covered with 4-inch covering. Work was commenced May 31 last, and continued up to November 10, when suspended for the season; the work done consisting of construction of a length of 360 feet to a height of about 1 foot above low water; the expenditure to date being $60,180 net, the inspector receiving $459.

During the season, the strengthening of the harbour wall of the old breakwater was effected June 12 to August 14 at an expenditure of $1,389.16. The work consisted in the driving and securing along the face of the old breakwater a quantity of creosoted piling, imported several years ago for the purpose.

SOUTH RIVER.

South River, Kings county, is situated at the head of navigation on the South river, on its north bank immediately below the public road bridge at Murray harbour, the terminus of the Murray Harbour branch of the Prince Edward Island railway. The pier is fully described in departmental report 1906-7, under the head of Murray Harbour. During the present season, the covering having, through natural decay, become quite unsafe for traffic, its repair was effected, the work being commenced July 2 and completed August 9 at an expenditure of $298.88.

SUMMERSIDE.

Summerside, Prince county, is on the southern side of the island, and next in importance to that of Charlottetown as a shipping place; the town of Summerside, with a population of about 3,500 inhabitants, is also next to Charlottetown as a business centre, and is one of the principal stations on the Prince Edward Island railway. For improvement of the harbour, both as to protection and approach, expenditures have at different times been made by the department, as described in departmental reports 1908-9-10-11.

During the past season, plan and specification was prepared for the delivery and placing of from 2,000 to 2,500 cubic yards of large-sized stone, measuring from one-half to 2 yards, in the breakwater, and tenders called for. As the only tender received was considered high, it was not accepted.

TIGNISH.

Tignish, Prince county, is situated on the northeast coast of Prince Edward Island, about 8 miles south of North Cape, being situated at the mouth of the Tignish river, here entering the gulf of St. Lawrence. The works, for formation of a boat harbour at the place, commenced in 1868 by the Provincial Government, and since Confederation extended by the Federal Government, are now as described in departmental reports of 1908 to 1912-13. They consist of piers or breakwaters on either side of the river's entrance, as also protection works over the long sand beaches on either side. The work is exposed to heavy storms, necessitating more or less repair from year to year. During the present season, the channel face, outer portion, of the north breakwater was repiled, portions of floor-stringers and covering renewed, the waling, cross-heads and covering on a 600-foot length of the southern breakwater also being renewed as required. An opening in the inner portion, formerly of use for the fishermen, but no longer desirable, was closed, as also general repairs and renewals effected to brush protection of beaches. The work was commenced June 12 and completed November 29, and the total expenditure was $3,960.70, the entire works being now in excellent repair.

Dredging.

The dredge *Pownal* was employed 24th April to 12th September, during which time 20,500 cubic yards, scow measurement, of mud, sand, and brick clay were removed in clearing out portion of the channel between the breakwater and as far up the river as Jude's point, where a turning basin was formed, total length of cut being 1,900 feet, with average width of 40 feet, carrying a depth of 5 feet at low water spring tides. A cut 200 feet long and 40 feet wide was also made through a shifting

sandbar obstructing the entrance, operations extending from 13th to 20th September, during which time 1,150 cubic yards, scow measurement, of sand were removed. On 24th September the dredge *Pownal* performed one day's private work for the Hon. Charles Dalton, when 500 cubic yards of material were removed near Jude's point; the usual charge of $74 per day for use of dredge and plant being made.

TRACADIE.

Tracadie, Queens county, is situated on the north side of the island about 12 miles east of Rustico harbour, and about 6 miles by road north of Redford station on line of the Prince Edward Island railway, and is from Charlottetown, the capital of the province, about 14 miles. Within the entrance, which has a width of about 900 feet, the harbour has a length of about 3 miles and a width of about 1 mile, over all of which a depth of 12 feet of water, or better, is carried at low water. The place is largely used as a fishing station and harbour of refuge; owing, however, to its entrance being obstructed, generally by a shifting sandbar, it is found often only available for small vessels and fishing boats, and in fact only at times admitting of the latter, although outward and inward of the bar there is a good depth of water. With a view, if possible, of improving this condition, a breakwater 1,000 feet long, costing $24,546, was constructed, under contract, on the eastern side of the harbour; the work being fully described in departmental report of 1912-13.

During the past season, the sum of $1,692.09 was expended in making up the ballasting where settlement had occurred in the outer 400 feet of the breakwater, as also strengthening its outer end with long piling. The work being commenced on 3rd July and completed on 23rd October.

VERNON RIVER.

Dredging.

Port Vernon, Queens county, situated at the head of navigation of the Vernon river, about 2 miles above its entrance into Orwell bay, and, though only a place of 200 inhabitants, is surrounded by a large, rich agricultural district, for which it is the shipping outlet, there being at the place a wharf on either side of the river, maintained by the Dominion Government. Below these, the river channel was found somewhat narrow and intricate, and for its improvement a contract was entered into June 25, 1913, with the Maritime Dredging and Construction Company of St. John, N.B., work being commenced with dredge *Beacon Bar* on July 10, and completed September 30; a channel 100 feet wide, having a length of 4,300 feet, was cleaned up to a depth of 10 feet at low water spring tides. This involved the removal of 86,487·6 cubic yards, scow measurement, of mud, costing, at the contract price of 27½ cents per yard, the sum of $23,784.09.

WEST RIVER.

West River (McEachern's), Queens county, is situated on the north side of the West river, which flows into Charlottetown harbour. It is distant from Charlottetown by water about 7 miles, and by road 11 miles, surrounded by a rich agricultural district, having a population of some 250 persons interested in shipping.

The old work, which had a length of 230 feet, was originally built by the Provincial Government many years ago, who latterly having neglected its repair, had, by 1912, become entirely useless as a shipping place. The department having assumed its control, reconstruction was commenced August 23, but was not carried on continuously, owing to the difficulty of securing suitable material in the summer months; when the work was suspended for the season on December 15, 190 feet of the approach 20 feet wide, consisting of close face 12 by 12-inch timber, was completed, also 60 feet of the grading to approach, at a total expenditure of $2,168.05.

WOOD ISLANDS.

Wood Islands, Queens county, are situated about 30 miles southerly and easterly from Charlottetown, and 15 miles west of Cape Bear, being the most southerly point of Prince Edward Island. For formation of a small harbour at the place, works were commenced by the Provincial Government and since continued by the Dominion Government, until now they consist of two breakwaters, the northern breakwater extending from the mainland for a distance of 2,525 feet, and the southern one extending from the northern island a distance of 1,000 feet. During the present season, a contract was awarded to Messrs. W. H. Townshend, A. L. Fraser, and A. F. McQuaid for the sum of $6,975, for the construction of an extension of 100 feet to the southern breakwater, the materials for which are being arranged for; work to commence whenever weather conditions will permit, probably about 1st June.

NEW BRUNSWICK.

ALBERT.

Albert, Albert county, is situated on the Shepody, a tidal river with a strong current, practically dry at low water, discharging into the Bay of Fundy. Albert is the terminus of the Salisbury and Harvey railway, and is distant 45 miles from Salisbury, the junction with the Intercolonial railway.

On the 6th of January, 1913, a contract was let for the construction of a wharf and bed for vessels for the accommodation of steamer and schooner traffic. The work consists of a pier-head of square, close-faced cribwork, 100 feet long, 50 feet wide for a distance of 70 feet, and 40 feet wide for 30 feet, measured on top, placed on piles driven generally a distance of 4 feet apart, connected with the bank by a brush and gravel approach 234 feet long. In front of the wharf a round cribwork wall, 10 feet wide and 170 feet long, with two wing walls, each 35 feet long and 10 feet wide, has been built, and the spaces inclosed and filled with brush and mud up to the top of the wall, forming a bed for vessels 150 feet by 35 feet, measured inside the cribwork. The work was begun on the 27th of June, and completed on the 29th of November, 1913.

For the protection of perishable freight, a shed 12 feet by 20 feet was built by day labour on the wharf, during the month of March, 1914.

Expenditure, $16,203.47.

ANDERSON'S HOLLOW.

Anderson's Hollow, Albert county, is a cove of Salisbury bay on the northwest side of Chignecto channel in the Bay of Fundy. Spring tides rise 40½ feet; neaps, 32½ feet. A large quantity of timber and farm products are shipped from this place. The breakwater-wharf at Anderson's Hollow was begun by the department in 1879, and since then has been extended.

The work consists of round cribwork, sheathed on the weather face, and is 602 feet long and 25 feet wide on top. There is a depth of 17 feet at high water at the outer end, which is dry at low water.

During 1913-14, repairs to the approach to the wharf were made, by the construction of a cribwork block 60 feet long, averaging 6 feet wide and 4 feet high, filled with ballast and sheathed. Further repairs were made to the end of the approach, where damaged by storm. The roadway approaching the wharf, for 350 feet, was repaired by filling the centre and ditching at the sides. The break was repaired by placing twelve new braces and some timbers. A few pieces of covering were also repaired.

Expenditure, $430.19.

BASS RIVER.

The Bass River district lies on the main Richibucto river and between it and a branch known as Bass river.

For the accommodation of boats used in the gaspereau fishing, a small wharf was constructed during 1913-14 on the main river, about 13 miles above Rexton or 19 above the river mouth, at what is known as Bass point, in the above district.

Work was in progress between the 12th September and the 13th October, and the 22nd and 31st October.

The wharf is 114·7 feet long and consists of an approach 45 feet long by 16 feet wide, two spans of 14 feet, one block 16 feet by 16 feet, and a pier-head 26 by 31 feet. The whole is built of round-timber cribwork filled with ballast, with 10-inch by 10-inch stringers and caps, and 3-inch covering.

The expenditure for the fiscal year 1913-14, and the total expenditure to date, was $1,260.61.

BATHURST.

Dredging.

Bathurst, the shire-town of Gloucester county, is situated on the south shore of Chaleur bay.

Bathurst harbour is about 2½ miles long by 2 miles wide, and is shallow and largely dry at low water except in narrow winding channels. A wide shoal outside the entrance also seriously interferes with navigation.

On the 7th July, 1913, a contract was entered into with the Northern Dredging & Construction Co., for the removal of 400,000 cubic yards of sand, mud, etc., to obtain 17 feet at low water, over part of the channel in the harbour, in a cut generally 200 feet in width. The contract price was 25 cents per cubic yard, place measurement. Under this contract, the dredge *Hayward* was at work between the 9th July and 22nd November, the dredge *Gray Loggie* between the the 23rd July and 29th October, the dredge *Invader* between the 2nd August and 27th November, the dredge *King Edward* between the 9th September and 21st November.

A total of 209,380 cubic yards, place measurement, was removed, the total cost being $54,691.26, including $1,219.49 for inspection and $1,126.77 for the purchase of gasoline boat, sounding raft, etc.

The dredging for the season consisted of the following: An area 1,280 feet long was dredged by the *Gray Loggie* and *King Edward* on the Ripple bar immediately inside the harbour entrance, the first 570 feet of which was 200 feet wide, increasing to 300 feet in the next 330 feet, the remaining 380 feet being 300 feet wide. Above the Ripple bar, and over the Ballast bar, an area 2,775 feet long was dredged by the *Hayward*, *Invader*, and *Gray Loggie*, of which 2,035 feet was 200 feet wide and 740 feet at the turn in the channel was from 200 to 320 feet wide. The depth reached was 17 feet at low water, except for the upper 1,000 feet, where it varied from 13.5 to 17 feet.

The dredge *St. Lawrence* also worked between the 16th and 23rd October on the Tetagouche bar, inside the harbour, removing 2,200 cubic yards, barge measurement.

On the outer bar, the Government dredge *Restigouche* or *No. 3* was at work between the 5th May and 12th July and the 6th and 29th November, and the Government dredge *St. Lawrence* or *No. 2* between the 14th July and 7th November. The total quantity removed by these dredges was 115,190 cubic yards, barge measurement.

Under an agreement with the Northern Dredging and Construction Company, 17,075 cubic yards, barge measurement, were also removed by the dredges *Invader*, between the 26th July and 28th August; and the *Gray Loggie* between the 5th and 9th August. The cost was $4,268.76.

The work on the outer bar consisted of dredging a cut about 80 feet wide for a total length of about 4,000 feet, the depth reached being 10·5 to 15 feet where there was previously a least depth of about 6 feet at low water ordinary spring tides.

BAY DU VIN.

Bay du Vin, Northumberland county, lies on the south side of the inner Miramichi bay, 20 miles east of Chatham.

A public wharf was constructed by the Provincial Government in 1891-4, and in 1899-1901 was partly repaired and in part rebuilt by the Department of Public Works.

About 375 feet of the old section of the wharf was damaged or destroyed by moving ice, during a heavy storm in December, 1913.

Authority was received in March to secure and pile any sound timbers to prevent their loss when the ice leaves, but nothing could be done before the close of the fiscal year.

The total expenditure to date has been $11,065.11.

BLACK RIVER.

At Black river, St. John county, a small cove in the Bay of Fundy, 12 miles east of St. John, where spring tides rise about 25 feet, a wharf of square crib-work, 155 feet long, 27 feet wide, and 30 feet in extreme height, was built by the department in 1879 for the use of coasting vessels. The work is dry at low water.

During 1913-14, the laying of the covering over an area of 2,048 square feet was completed; nine new fenders were placed on the work; two new ladders, new steps, and a derrick were constructed; the caps and tops of the fenders were coated with tar; the approach to the wharf was graded, about 200 cubic yards of filling being used for this purpose, and a drain was excavated in the rock for 100 yards.

Expenditure, $585.06.

Work begun December 8, 1913, and was completed January 24, 1914.

BLACK RIVER.

Dredging.

The Black river, Kent county, is a small stream entering Buctouche harbour about 1 mile north of Buctouche.

During March, 1912, and February and March, 1913, a narrow cut, generally 10 to 20 feet wide, was dredged by day labour across a shoal at the river mouth extending up to a small wharf constructed at a highway bridge.

The dredging is intended to give the fishing boats access to the wharf at all times of tide.

Between 13th September and 22nd November, 1913, the dredging was continued under an agreement with Mr. Felix Michaud, with the dredge *Excavator*, to widen and extend the cut, the required width being 40 feet, and depth 4 feet at low water. When the work closed down, 6,398·4 cubic yards, barge measurement, of sand, mud, shells, etc., had been removed out of a total of 8,400 cubic yards authorized. The dredged channel was then 1,200 feet long and generally 40 feet wide, but the full depth had not been reached throughout.

The expenditure was $2,452.93, being 6,398·4 cubic yards at 36 cents, plus $149.50 for inspection.

BRIDGETOWN.

Bridgetown, Northumberland county, lies at the head of deep water navigation on the Southwest Miramichi river. The Intercolonial Railway bridge crosses the river at this point, and immediately below are the lumber mill and wharf of the Edward Sinclair Lumber Company.

During the season of 1912, 7,495·6 cubic yards, place measurement, were removed under agreement with the Northern Dredging and Construction Co. in dredging a berth 650 to 720 feet long and 100 feet wide in front of the wharf to, generally, 22 feet at low water. Towards the lower end of the wharf, rock was encountered, and the full depth could therefore not be reached. Some soft material, however, remained to be removed from the surface of the rock to give slightly better water, and a few shoal spots require deepening.

On the 13th May, 1913, authority was given for the removal by the same company of 3,500 cubic yards, place measurement, for the completion of the above work, the price being, as before, 30 cents per cubic yard, place measurement.

No work was done under this authority during the fiscal year 1913-14.

BUCTOUCHE BEACH.

Buctouche Beach, Kent county, 6 to 7 miles long, separates Buctouche harbour from the Northumberland strait. The harbour entrance is at the southern end of the beach. At the northern end, it is proposed to cut a channel through the beach to give a short passage from the harbour to the fishing grounds, and to provide a shelter for the boats on the outer shore. Breakwaters and breastworks have been constructed on each side of the proposed canal, which will be about 950 feet long at high water level and about 40 feet wide.

Work was in progress between the 12th June and the 12th July, on the 30th July, between the 4th and 25th August, the 3rd and 6th September, between the 11th September and 11th October, the 20th and 24th October, and between the 4th and 22nd November, 1913, when an extension of the north breakwater, 98½ feet long, was constructed of pile-work filled with brush and stone, and the sheet piling of the inner face of the north breastwork was continued for about 335 feet; 3-inch plank was used for the sheet piling and the old 6 by 8-inch waling along the top was largely renewed and an additional waling placed below under the plank.

The south breastwork was filled with brush on a length of 200 feet, 5 feet wide by 6 feet high, and the south breakwater on a length of 24 feet, about 10 feet wide and 4 feet deep; 1½ feet of ballast was placed over the brush in the breakwater.

Gaps were cut in the breastworks, and approaches of plank built on either side in order that teams might be transferred across the canal on a scow.

A cutting was made 100 feet long and 6 feet wide through a bank of sand which had formed inside.

The expenditure for the fiscal year 1913-14 was $2,499.46.

BUCTOUCHE HARBOUR.

In the 5½ miles between the town of Buctouche and the harbour entrance on the Northumberland strait, three shoals occur, the most serious of which is at the entrance where a wide ledge of rock limits the depth to about 11 feet at low water ordinary spring tides.

During the season of 1913, the Government rock breaker *Lobnitz* has been at work on this ledge, breaking the rock to a depth of 3 feet for a length of 360 and width of 122 feet.

The broken rock has not yet been removed by dredging.

CAMPBELLTON.

Deep Water Wharves.

Campbellton, Restigouche county, is situated on the southern shore of the Restigouche river, 16 miles above Dalhousie and 16 miles below the head of the tide. It is a divisional point on the Intercolonial railway, and the terminus of the International railway. It is an important deal shipping port and has a rapidly growing population.

During the fiscal year 1913-14, the old plank covering was replaced with a stone and gravel surfacing for a length of 193 feet and a width of about 10 feet on the western extension, over an area of 255 by 15 feet on the westerly side of the approach, and the interior was surfaced with gravel for about 215 by 25 feet. About 810 loads of gravel were used. The outer lower corner was repaired where ice had damaged the fenders. Mooring posts were reset and strengthened and small holes in the gravel covering were filled.

On the market wharf, 30 loads of gravel were spread over the pier-head, and the western side was sheathed with 6,214 feet b.m. of 3-inch plank in a length of 170 feet.

Work was in progress between the 7th August and the 27th September, and between the 25th and the 31st October.

The expenditure for the fiscal year 1913-14 was $892.63.

Ferry Landing.

The landing slip for the Interprovincial ferry between Campbellton and Cross Point, Quebec, was constructed by the department in 1904-5.

Between the 29th September and the 2nd October, 1913, the slip was covered with new 3-inch plank over an area of 52 by 35 feet.

The expenditure for the fiscal year 1913-14 was $122.27.

Dredging.

During 1913-14, between the 7th and 12th July and 10th and 15th November, the dredge *St. Lawrence* or *No. 2* worked in the outer 500 feet of the berths on the inside of the deep-water wharves, dredging to a width of 80 feet and to depths of 17 to 22 feet, in order to improve the berths which are continually shoaling through the deposit of silt, and enable lumber steamers to lie afloat and take full loads.

Some 9,200 cubic yards of mud and gravel were removed.

CAPE BALD.

Cape Bald, Westmorland county, is a farming and fishing district on the south shore of the Northumberland strait, about 14 miles east of Shediac.

The construction of a breakwater at Cape Bald was begun on June 6, 1909, under contract with Mr. E. A. Wallberg, and the work, which consists of an approach 646 feet long and a pier-head 100·4 feet long on the outer faces, was practically completed at the end of 1910.

After the forms were removed, a number of holes and imperfections appeared in the concrete faces of the breakwater, and the scouring of the bottom by waves left vacancies under it.

Repairs were in progress between the 8th July and the 8th September, and between 29th September and the 3rd October, 1913.

On the pier-head, where there were large holes in the outer face below low water, 3-inch plank were placed inside the old concrete as a form for a stone and concrete inner wall 40 feet long, behind which the empty bays were filled with ballast; 112 cubic yards of stone and ballast were used.

Outside the pier-head, a wall was laid 50 feet long, 8 feet high, and 3 to 2 feet wide of concrete blocks, of which fifty-six were used, generally 6 by 2 by 2 feet in size. Concrete and ballast were placed in the space about 12 inches wide between the wall and the old face; 383 bags of cement and 90 cubic yards of broken stone were used during the season. About $130 was expended in purchasing a winch, etc., and in fitting up a derrick.

The expenditure for the fiscal year 1913-14 was $1,557.96.

CAPE TORMENTINE.

Cape Tormentine, Westmorland county, is the terminus of the New Brunswick and Prince Edward railway, and the nearest point of communication between Prince Edward island and the mainland, which are there 9 miles apart.

Between 1880 and 1892, a breakwater pier 3,300 feet in total length was constructed by the department to assist communication with the island. The pier also affords a harbour from which large lumber shipments are made to oversea ports.

In connection with the construction of car ferry terminals at Cape Tormentine, the pier was on the 10th June, 1913, transferred by Order in Council to the Department of Railways and Canals, also the balance then remaining of the appropriation for 1913-14.

Work under the Department of Public Works was in progress between the 1st and 16th and the 22nd and 31st May, on the 2nd and 3rd and between the 21st and 30th June, 1913.

Two courses of large stone were laid on a length of 60 feet along the north side of the pier, and large stones moved by ice and storms were replaced; 146·09 cubic yards, 29 carloads, of large stone blocks and 52¾ cubic yards of small stone were received. This was unloaded and placed chiefly along the south or inner side of the breakwater, where a slope about 200 feet long and 10 feet wide was laid.

The expenditure by the Department of Public Works was $1,027.54.

CARAQUET.

Caraquet, Gloucester county, lies on the south shore of Chaleur bay, about 45 miles east of Chatham.

During the fiscal year 1913-14, the old covering of the deep-water wharf, built in 1902 to 1905, was repaired by inserting about 3,577 feet b. m. of 4-inch plank to renew worn and broken pieces, and a strip of 2-inch covering was laid lengthwise over the old surface for a length of 1,207 feet, of which 40 feet was 15 feet wide, 49 feet 17 feet wide, and the balance 12 feet wide. About 30,000 feet b.m. of 2-inch plank was used. The outer 25-foot block, and adjoining spans, where settlement had occurred, were levelled up by laying four new cross-ties on the block, and new stringers over these, and the old stringers of the spans, and relaying the covering.

Work was in progress between the 2nd and 24th September, the 24th and 26th November, and the 2nd and 10th December.

The expenditure for the fiscal year 1913-14 was $953.02.

CHANCE HARBOUR.

Chance Harbour, St. John county, is a cove, one-half mile wide at the mouth, about 350 yards broad at the head and three-quarters of a mile long. The place is situated on the Bay of Fundy, 19 miles west of St. John. Spring tides rise 24½ feet. The people of the place are engaged chiefly in fishing.

At Chance Harbour, the department began, in 1905, the construction of a small inclined breakwater of close-faced cribwork, partly submerged at high water. The work has been raised and extended, and now consists of an approach 146 feet long and 23 feet wide, and a pier-head, 41 feet long and 40 feet wide. The work is 29 feet high at the outer end.

During 1913-14, the approach for 40 lineal feet was raised an average height of 2 feet 4 inches by the addition of cross-ties, stringers and covering. The pier-head was completed by the addition of four face-timbers, with cross-ties and longitudinals. Cap, covering, fenders and ladders were also placed on the work.

Expenditure, $547.91.

Work begun September 15, and was completed November 10, 1913.

CHOCOLATE COVE.

Chocolate Cove, Charlotte county, situated at the southeast of Deer island, is distant 2 miles from Leonardville and 2½ miles from Cumming's cove, where there are departmental wharves. The population of Chocolate Cove, about 125, are all dependent upon fishing.

At Chocolate Cove there is a Provincial Government wharf, consisting of a pile approach, 22 feet wide and 126 feet long, and a cribwork block 22 feet square. The department has been requested to extend this wharf and to dredge a basin, in order to give shelter to fishing boats. When the wharf is completed, it is expected that a steamer will make a regular call.

On the 15th of December, 1913, a contract was let to the Maritime Dredging and Construction Company, Limited, for the dredging of a wharf site and basin, and the construction of a pile approach, 310 feet long and 22 feet wide, together with a cribwork pier-head 40 feet by 60 feet measured on top, with a movable slip and a shed.

The work will not be begun until the fiscal year 1914-15.

CHATHAM.

Chatham, Northumberland county, lies on the southern shore of the Miramichi river, about 20 miles above its mouth. It has a population of about 5,000, and is one of the chief deal ports of New Brunswick.

During the fiscal year 1913-14, a small wharf, 103 feet long and 12 feet wide, in the dock at easterly side of the Custom-house wharf, begun in the previous year, was completed. The wharf was sheathed with 4-inch plank on the outer end and for 85 feet on the western and 105 feet on the eastern sides, and 150 lineal feet of cap timbers were laid.

About 17 feet of the easterly side of the Custom-house wharf was also sheathed with plank where ballast and gravel were falling out.

The winter shed for the inspection boat was painted, three doors were put in, and the roof was covered with ten rolls of rubberoid roofing. A gasoline tank was installed.

Work was in progress between the 20th June and 18th July, the 3rd and 31st October, and the 3rd and 11th November.

The expenditure for the fiscal year 1913-14 was $598.57.

Dredging.

The Miramichi Foundry Co.'s wharves are situated near the upper end of the town of Chatham, on the south shore of the Miramichi river, and are used by tugs, coal steamers, dredges, etc.

Dredging was done in the berths along the face of these wharves between the 17th and 24th May, 1913, by the dredge *Hayward*, under an agreement with the Northern Dredging and Construction Company.

A total of 1,594.8 cubic yards, place measurement, were removed in dredging a borth 126 feet long to 20 feet at low water ordinary spring tides in front of the Watt wharf (so called), the width of the dredging, out to the original 20-foot contour of the river bottom, being 5 to 12 feet; also berths 250 and 225 feet long to 16 feet at low water ordinary spring tides in front of the Miramichi Foundry wharf proper, where the width of the dredging out, to the 16-foot contour, varied from 7 to 60 feet.

A total of 2,259 cubic yards, measured in scows, was removed, considerable dredging having been done below grade.

The cost of the work, at 30 cents per cubic yard place measurement, including $20 for inspection, was $498.44.

CHOCKFISH.

Chockfish, Kent county, is a farming and fishing settlement on the Northumberland strait about midway between Richibucto and Buctouche.

The works consist of breakwaters at each side of the present river mouth, and breastworks and a dam to close the original winding and unstable channel. Through their construction, the depth of water has increased and a permanent entrance has been provided to a safe and convenient harbour.

Between the 15th and 30th September, 1913, the outer end of the north breakwater was repaired and strengthened, where damaged by the ice during the previous winter, by bolting twenty upright round timbers to the walings to replace damaged piles. The stone inside the breakwater was removed, the breakwater filled for a length of 66 feet with about 13,500 cubic feet of brush and the stone replaced over the latter.

The expenditure for the fiscal year 1913-14 was $150.04.

COCAGNE.

Cocagne, Kent county, is a fishing and farming village and settlement on the Northumberland strait, about midway between Buctouche and Shediac.

During the fiscal year 1913-14, a survey was made and contract plans prepared for a wharf 380 feet long at Cocagne church, about 1 mile northward of the village proper, and at a point convenient to the fishing grounds and where a large number of boats now bring their catches of herring, oysters, etc.

Tenders were advertised for on the 17th March, 1914.

COLES POINT.

Coles point, Westmorland county, lies at the head of Shepody bay and the mouth of the Memramcook river about 3 miles southwest of Dorchester.

The wharf at Coles point was built in 1902.

Between the 12th and 27th September, 1913, the old covering of the wharf was repaired by replacing decayed and broken planks with about 1,518 feet b.m. of new 4-inch lumber. New 2-inch plank was laid over the old covering on the pier-head, 60 by 30 feet, and a strip of the same, 21½ feet wide, was laid for the next 166 feet of the wharf, and a strip 9 feet wide over the next 424 feet; 20,372 feet b.m. of lumber was used.

The expenditure for the fiscal year 1913-14 was $437.20.

DALHOUSIE.

Dalhousie, Restigouche county, lies at the head of the Chaleur bay, and at the mouth of the Restigouche river, 16 miles below Campbellton. It has a population of 1,650, and is an important deal port.

The new breakwater on the eastern side of the ferry basin, begun in 1911, under contract with Mr. T. P. Charleson, was completed on the 17th May, 1913.

The work done during the fiscal year 1913-14, consisted of spiking part of the covering; placing the lower rungs in the ladders and painting the cap with the second coat of carboineum.

As completed, the breakwater consists of a stone embankment 100 feet long with superstructure of cross-ties, stringers, covering, and cap; a main section 750·6 feet long of pile bents filled with brush and ballast, and close-piled along the westerly face, and a cribwork block 150 feet long. The width on top is 26·3 to 27·3 feet.

The contract price was $23,440.

The expenditure for the fiscal year 1913-14 was $2,418.46, of which $33.46 was for inspection.

The expenditure to date on the new breakwater has been $26,453.09, including inspection and purchase of old breakwater property.

Dredging.

During the season of 1913, dredging in the ferry basin under the contract with the Northern Dredging & Construction Co. was continued in the area between the ferry wharf and new breakwater, and a new contract was entered into with the same company for the removal of a ledge or reef near the outer end of the berth at the Dalhousie Lumber Company's wharf on the western side of the same basin.

Under the latter contract, the drill boat was at work between the 26th August and the 27th November, and the rock was drilled and blasted over an area about 108 by 65 feet. The dredge *Gray Loggie*, between the 4th and 28th November, removed the greater part of the soft material, or 268·5 cubic yards, place measurement, from the whole area 200 by 75 feet where dredging is required, and the broken rock amounting to 653·2 cubic yards, place measurement, from an area 84 by 65 feet. The depth reached was 21 feet at low water ordinary spring tides.

The contract prices are $5 for rock and 30 cents for soft material per cubic yard, place measurement, and the total expenditure including inspection was $3,565.26.

The dredging is intended to provide a safe berth for steamers loading lumber and pulpwood at the Dalhousie Lumber Company's wharf.

Dredging under the first contract was in progress between the 17th June and 14th July by the *Gray Loggie*, when 14,948·8 cubic yards of soft material were removed, including 124·3 cubic yards allowed as the equivalent of the removal of logs. The cost of the work at the contract rate, 29½ cents per cubic yard, barge measurement, and including inspection, was $4,482.55, in addition to the cost of dredging 27,760 cubic yards class "B" material and 2 cubic yards class "A" material under the same contract during 1912.

The work done consisted of dredging to a depth of 15 feet at low water ordinary spring tides, an area 180 feet in average width, 410 feet long next the ferry wharf and 650 feet long at the new breakwater. Of this area the inner 200 feet was dredged during 1913. The whole provided berths at the ferry wharf and breakwater for tugs, schooners, dredges, etc., and winter storage area for these vessels.

DIPPER HARBOUR.

Dipper Harbour is a fishing station on the Bay of Fundy, 20 miles west of St. John. Spring tides rise 24 feet. In 1906, a breakwater of square, close-faced cribwork, 335 feet long, from 28 to 38 feet in width, and 43 feet high at the outer end, was built to give shelter to fishing boats. In 1912, the construction of an extension of square, close-faced cribwork, 100 feet long and 38 feet wide, on top, begun in 1911, was completed.

During 1913-14, steps with three landing platforms were constructed, together with a freight shed 20 feet by 30 feet. A portion of the covering on the original work was renewed with 7,000 lineal feet of new deals.

Work begun 11th August, and was completed 16th September, 1913.

Expenditure, $771.04.

DORCHESTER.

Dorchester is the shire-town of Westmorland county, and a station on the Intercolonial railway, 27 miles southeast of Moncton.

In 1909, this department constructed a wharf 202 by 52 feet on the Memramcook river at Dorchester. The old railway wharf adjoining, with a frontage of 200 feet, was taken over from the Department of Railways and Canals in 1911.

During the fiscal year 1913-14, the accumulation of mud was removed from the beds on which vessels lie at low water in front of the wharves, and the beds were repaired by placing brush (for 40 by 15 feet) at the lower end at the new wharf and at the upper end at the old railway wharf. The mud excavated amounted to a total of about 700 cubic yards.

A quantity of iron, etc., which had fallen from the steamers, was also removed.

Work was in progress on the 9th and 12th April, between the 23rd April and 2nd May, the 15th to 23rd July, 8th to 12th September, on October 28th and 29th, and between the 14th and 22nd November.

The expenditure for the fiscal year 1913-14 was $372.75.

A contract was entered into on the 29th October, 1913 with the Island Dredging & Construction Co., Ltd., for the reconstruction and enlargement of the old railway wharf. Work under this contract had not begun by the end of the fiscal year. The contract price is $15,400.

DUNHAM'S.

Dredging.

Dunham's is situated in Kings county, on the eastern side of the St. John river, about 25 miles above St. John.

Dredging was required to give deeper water in front of the wharf, and was to a depth of 9 feet below low water.

The dredge *New Brunswick No. 1* of the New Brunswick Construction Co., started work on October 4; 12,683·2 cubic yards, place measurement, of class "B" material were removed at 28 cents per cubic yard. The material consisted of gravel, clay, and sand. Work was completed on the 20th October, 1913.

The total expenditure, including inspection, for the fiscal year ending March 31, 1914, amounted to $3,604.70.

DURHAM.

The wharf at Durham, Restigouche county, was constructed in 1905 and 1906. It lies on Chaleur bay, near the junction of Restigouche and Colchester counties.

During May, 1913, the wharf was cleared of drift logs, seaweed, and rubbish washed on top of it by a storm which covered it for a length of about 350 feet and a depth of about 4½ to 5 feet.

The work was done by agreement for $40.

EDGETT'S LANDING.

Edgett's Landing, Albert county, is on the west side of the Petitcodiac river, 2 miles below the village of Hillsborough on the Albert Southern railway. The wharf at Edgett's Landing is of round and square cribwork, 400 feet long, from 20 to 40 feet wide, and 35 feet high at the outer end. Spring tides rise 46 feet. The shipping over this wharf consists entirely of groceries, feed, and grain used in the vicinity, where there is a population of probably 125 people.

During 1913-14, the stringers and covering of the pier-head, 100 feet long and 40 feet wide, were renewed; ten new fenders, one piece of cap, and four new mooring posts were placed on the work, and the approach, 200 feet long and 20 feet wide, was repaired with brush, stone, and gravel.

Work was begun July 1, and was suspended November 27, 1913.

Expenditure, $966.07.

EVANDALE.

Dredging.

Evandale is situated 30 miles from St. John on the west side of the St. John river, and about 3 miles below Hampstead.

This dredging was required to 11 feet below low water for the purpose of providing a basin at the wharf.

The dredge *New Brunswick No. 1* of the New Brunswick Construction Co., commenced work on August 23, 1913, and finished on September 10, removing 9,516·5 cubic yards, place measurement. The material consisted of clay and rock.

The total expenditure, including inspection, for the fiscal year ending March 31, 1914, amounted to $2,889.57.

FAIRHAVEN.

Fairhaven, Deer island, Charlotte county, is 7 miles from St. Andrews, and is a sheltered fishing settlement and a port of landing for the mails. The annual value of the output of the sardine cannery is $50,000. The steamer *Viking* touches six times a week.

Many years ago, the Provincial Government built, of round cribwork, with trestle approach, a wharf 190 feet long. The wharf became dilapidated, and the Provincial Government repaired the approach and the department was asked to rebuild the pier-head.

On the 28th of November, 1912, a contract was let for the construction of a pier-head of round cribwork, 32 feet by 50 feet, measured on the top, to be connected with the present wharf by an 8-foot span. The outer end of the present wharf is to be widened. Work was begun on the 13th of October, 1913, and by the 16th of January, 1914, the pier-head, with a base 58 feet by 40 feet, had been built to the second ballast floor, and the ballast floor laid in place. Work was suspended for the winter.

Expenditure, $2,220.

FREDERICTON.

Fredericton is situated on the western shore of the St. John river, in York county, 84 miles by water from St. John.

On August 26, 1912, work was commenced on the construction of a concrete and cribwork high-water wharf at Fredericton.

Work was resumed this season, and is now completed except for a small amount of filling and grouting of the concrete wall.

The total expenditure for the fiscal year ending March 31, 1914, amounted to $5,712.77.

Dredging.

The channel of the river was cleaned up to a depth of 11 feet below low water. Work was commenced on July 15, 1912, and suspended owing to the close of navigation on November 7, 1912. The expenditure for this season, 1912-13, including inspection, amounted to $42,433.83.

Work was recommenced on July 2, and was completed on August 11, 1913.

Three dredges were employed on this work during the season, namely, the *New Brunswick No. 1, Provincial No. 1,* and the *Tanta Wanta,* 51,446·0 cubic yards, scow measurement, of sand, gravel, and clay, class "B" material, were removed. This work was under contract with the New Brunswick Construction Company at 23 cents per cubic yard, scow measurement. The final survey over this work showed that the area had not been dredged to the required grade, 27,790 cubic yards, scow measurement, being required to complete the desired improvements.

The total expenditure, including inspection for the fiscal year ending March 31, 1914, was $12,131.58.

GEROW'S.

The dredge *New Brunswick No. 1* proceeded to Gerow's, which is on the east side of the St. John river, between Wickham and Palmer's, in Queens county, and commenced work on August 21, 1,173·0 cubic yards, place measurement, of mud, class "B" material, were removed and the work completed on August 22.

GOOSE CREEK.

Goose creek, St John county, a tidal inlet on the north coast of the Bay of Fundy, is situated 22 miles east of Quaco. Spring tides rise 37 feet. A beach, about 100 feet in width, at high water, and 1,600 feet in length shelters a pond 1,800 feet by 900 feet, dry at low water. At the eastern end of the beach, an entrance with 15 feet at high water gives access to the pond. The annual value of the cut of lumber is $20,000. To preserve the beach, which affords shelter to the pond, the department, in 1911-12 and 1912-13, built a protection work of piles and plank, 776 feet long, and a cribwork wall 145 feet long and 10 feet wide.

A heavy storm during the winter of 1912-13, removed a portion of the pile-work, which was replaced during 1913-14 by a cribwork protection 235 feet long, 14 feet wide and 7 feet high, filled with ballast. One pile groyne, 91 feet long, with 10 tiers of waling, has also been built, and three and four tiers of waling have been placed on two other groynes, 40 and 85 feet long respectively. Five tiers of waling have been placed on the former pile protection for 230 feet; the pile protection has been securely braced, and the former cribwork protection, 145 feet long and 10 feet wide, has received 3 feet of ballast throughout.

Work was commenced July 15, and was completed October 24, 1913.

Expenditure, $3,269.82.

GOOSEBERRY COVE.

Gooseberry Cove, St. John county, is situated 23 miles by road and 14 by water, west of St. John. Ordinary spring tides rise 25 feet. Twelve fishing boats are owned here, and many fishermen make this place their headquarters during the salmon fishing season. To protect the fishing boats from northeast winds, the department began, in 1911-12, the construction of a wharf of round cribwork, intended to be 176 feet long. The work was built up to high-water mark for a mean length of 123 feet and a width of 15 feet on top, and partially ballasted.

During 1913-14, the wharf was brought up to the finished height, 4 feet above high water, and ballasted, and a round cribwork pier-head, 25 feet by 46 feet, was built to the required height. The wharf was completed with the exception of the covering, cap, and fenders.

Work was begun August 1, and suspended November 5, 1913.

Expenditure, $3,326.23.

GRAND ANSE.

Grand Anse, Gloucester county, a station on the Caraquet railway, and a fishing and farming settlement of about 800 inhabitants is situated on the southern shore of the Chaleur bay, 28 miles northeast of Bathurst. The construction of a breakwater for the protection of the fishing boats was begun in 1876.

During the fiscal year 1913-14, the construction was continued of a groyne or pier to protect the harbour inside the Grand Anse breakwater from easterly storms, and catch the littoral drift which is filling the harbour.

Work was in progress between the 22nd and 28th April and, with but short breaks, between the 1st June and the 19th November, 1913, when the groyne was extended 196 feet, or to a total length of 495 feet, by the construction of cribs about 107 and 89 feet long. The width on top is 12 feet. Stringers were laid on the extension for about 86 feet. The section built in 1912, 184 feet long, which had settled considerably, was levelled with an extra tier of cross-ties laid over the old stringers and extra stringers. Additional ballast was inserted, the covering was laid for a length of 83 feet, and ten fenders were placed. Part of the lumber was secured for the completion of the work.

The expenditure for the fiscal year 1913-14 was $3,789.38.

GRANDIQUE.

Grandique, Kent county, is a fishing and farming settlement situated at the northerly end of Shediac harbour, and about 7 miles by road northerly from Shediac.

The Grandique wharf was built in the early part of 1912. The original length was 352·7 feet. An extension 61½ feet long by 30·7 feet wide, with an "L" 15 by 20 feet, was begun in January, 1913, of which the cribs were built to half tide level and ballasted in place through the ice. The ice moving in the spring slightly displaced the cribs, particularly of the "L." At the commencement of the work in June, the ballast was removed from the "L" and it was hauled back into place and an additional crib, 15 by 20 feet, built beside it to strengthen the structure. The whole extension was then built up to full height with stringers, covering, and cap complete, and sheathed along the outside with 4-inch creosoted plank driven about 2 to 2½ feet into the bottom. About 11,600 feet b.m. of creosoted timber was used. Three ladders, seven ring bolts, and three davitts with blocks and rope were placed on the wharf.

Work was in progress between the 19th June and the 23rd July, and between the 27th November and the 20th December, 1913.

The expenditure for the fiscal year 1913-14 was $1,045.75.

GREEN POINT.

Green Point, Beresford, lies on Chaleur bay, near the northwesterly end of Gloucester county. It is about 6 miles north of Petit Rocher, and 18 miles from Bathurst.

During the fiscal year 1913-14, contract plans were prepared for a breakwater and harbour of refuge for the fishing boats at Green Point.

GUNTER'S.

Dredging.

Gunter's is situated in Queens county, on the west side of the St. John river, about 9 miles above Gagetown. Dredging at this place was performed for the purpose of cleaning up the basin at the face of the wharf to a depth of 11 feet below low water. The dredge *Tanta Wanta* of the St. John River Dredging and Construction Company began work on 25th July, but after the removal of 46·05 cubic yards, place measurement, dredging was found to be too difficult, and the company could not complete the contract. The New Brunswick Construction Company was then authorized to complete the work at 30 cents per cubic yard, place measurement. The dredge *New Brunswick No. 1* commenced work on August 12 and completed on August 16, removing 2243·3 yards, place measurement of clay and rock, class "B" material.

HARVEY BANK.

Harvey Bank, Albert county, is situated on Shepody river, a tidal reach of the estuary of the Petitcodiac. A considerable amount of shipping is done at this place, consisting of lumber, general merchandise and farm products. In 1909, the department purchased a property known as Dow's wharf, and extended the same by constructing an approach 14 feet long and 20 feet wide, and a pier-head 40 by 30 feet. There is a depth of 20 feet at high water at the pier-head.

During 1913-14, a sum of $2,150 was authorized to raise the wharf 3 feet, and to extend it 30 feet farther inshore.

No work was done and no expenditure was incurred during the fiscal year.

HATFIELD'S POINT.

Dredging.

Hatfield's point is on the northern shore of Belleisle bay, in Kings county, near Springfield.

The dredge *Beacon Bar* of the Maritime Dredging and Construction Company worked here in November, 1912, removing 1,350 cubic yards, scow measurement, of class "B" material. This dredging was for the purpose of making a channel and entrance to the mill wharf to a depth of 9 feet below water. When near completion of the work asked for, it was found desirable, in the interest of a large mill which was being erected, to extend the work, but owing to the close of navigation this was left in abeyance until the next season.

Work was recommenced on May 23 by the dredge *New Brunswick No. 1* of the New Brunswick Construction Company, and was completed on June 27, 1913, after the removal of 20,235·0 cubic yards, scow measurement (15,176·25 yards, place measurement) of class "B" material, at 30 cents per yard. Overcasting at face of wharf amounted to 3,000 yards at 20 cents. The material removed consisted of mud.

The total expenditure, including inspection, for the fiscal year ending March 31, 1914, amounted to $5,079.25.

HOPEWELL CAPE.

Hopewell Cape, Albert county, with a population of about 500, is situated near the mouth of the Petitcodiac at the head of deep-water navigation, and is one of the several works intended for shipping. Granite worth $25,000, and half a million feet of lumber pass over the wharf annually. Spring tides rise 45 feet. The lower wharf at Hopewell Cape is 583 feet long and 22 feet wide. The upper wharf is 460 feet long and from 22 to 35 feet wide, with a pier-head 35 by 50 feet.

During 1913-14, the right of way and steps on the upper wharf were improved. On the lower wharf, 25,000 feet b.m. of new covering were placed; the roadway approaching the wharf was repaired; the cap and a portion of the fenders were replaced; the bed for vessels beside the wharf was improved and levelled up, and new ring bolts were placed on the work. A freight shed, 12 feet by 20 feet, was constructed on the wharf, entirely shingled, and the door and trimmings were painted. A ladder was replaced.

Work was begun June 2, was suspended November 2, 1913, and resumed during March, 1914.

Expenditure, $1,825.57.

HOPEWELL HILL.

Hopewell Hill, Albert county, is situated on the Shepody river, an arm of the Petitcodiac, 3½ miles distant from Albert by road. From Hopewell Hill, ten million

feet of lumber are exported annually. Farming and lumbering are the chief industries of the people. The population is about 700. In 1901, the department built a wharf, 101 feet in total length, consisting of a stone approach 24 feet long and 30 feet wide on top; two blocks, each 20 by 40 feet, and two intervening spans of 15 feet. The blocks are of open cribwork, planked on top and fendered on the sides. The roadway, approaching the wharf, is 500 feet long and 20 feet wide on top, composed of alternate layers of brush and clay. Spring tides rise 41 feet.

During 1913-14, the old top of the wharf was removed and the sunken portion, 39 feet in length, was raised an average height of 3 feet by building up with timber on top. The whole wharf was newly covered. A freight shed was constructed on the wharf, and repairs were made to the bed for vessels. During the month of February, timber was purchased for improving the right of way to the wharf.

Work was begun June 26 and was completed November 6, 1913.

Expenditure, $1,399.49.

ISLAND RIVER.

Dredging.

Island River, Gloucester county, is a fishing and farming settlement on Chaleur bay on the northwestern shore of Shippigan island.

On the 20th September, 1913, a contract was entered into with The W. J. Poupore Co. Ltd., for dredging a channel about 50 feet wide and 2,100 feet long to 4 feet at low water ordinary spring tides across a wide shoal which skirts the shore, to enable the fishing boats to take shelter inside the shoal and bring their catches ashore. The contract price is 40 cents per cubic yard, barge measurement, and the total amount of dredging called for was 17,000 cubic yards.

Between the 13th and 27th September, the dredge *Prince Louis* was engaged on this work, but was actually dredging on three days only, the 22nd, 23rd, and 26th, when 327·0 cubic yards of sand were cast over.

The expenditure, including $35.50 for inspection, was $122.80.

KOUCHIBOUGUAC.

Kouchibouguac harbour, Kent county, is entered by a narrow passage or gully between long sand beaches which separate the wide expanse of the harbour from the Northumberland strait. The entrance is about 12 miles north of Richibucto and 18 south of Miramichi bay.

Of late years, new gullies have opened up which, by reducing the current in the main entrance, tend to lessen the depth of water at the latter. The work of closing the new gullies and raising the low parts of the beach with breastworks to prevent further breaks began in 1908-9.

During the fiscal year, 1913-14, the first dam was raised about 4 to 5 feet for 520 feet by placing brush and stone between the piles, and the new dam, which had settled and was damaged, was raised by the addition of six brush mattresses 40 feet long by 20 feet wide by 6 feet high, and for 296 feet of its length at the north end, additional brush was placed in the space 6 to 7 feet wide between the piles. A light breastwork, 300 feet long, of stakes and brush was built between the two dams, and south of the dams a heavier work, 1,312 feet in total length, was constructed of piles 14 feet long, of which 332 were driven, in two rows 6 feet apart, the piles being 8 feet apart in the row. Three tiers of poles were spiked longitudinally on the piles and the interior was filled with brush loaded with stone.

Work was in progress between the 24th June and the 10th September.

The expenditure for the fiscal year 1913-14 was $3,499.52.

LEONARDVILLE.

Leonardville is a fishing station on the eastern side of Deer island (part of the county of Charlotte), 3 miles from Lord's cove, and 2 miles from Chocolate cove. Thirty sardine boats, from 8 to 12 feet in draught, are owned at Leonardville, in the neighbourhood of which there are sixty families. In 1909-10, a wharf, 303 feet in total length, consisting of a trestle approach, 143 feet long, a pile approach, 120 feet long, and a cribwork pier-head, 60 feet by 40 feet, was built by the department.

During 1913-14, 139 logs and 202 parts of old logs were removed from around the wharf and towed into deep water. A freight shed, 12 feet by 20 feet, and two gallows were built on the wharf, and the iron work of the slip was repaired. Materials for a floating slip, consisting of a scow and a bridge, were purchased, and the slip was about half built by the end of the fiscal year.

Work was begun May 5, suspended August 6, 1913, and resumed during month of March, 1914.

Expenditure, $942.91.

L'ETANG.

L'Etang, Charlotte county, is situated at the mouth of L'Etang river, about 5 miles from St. George. The population of about 200 are dependent on fishing for a livelihood. The wharf originally belonged to the Provincial Government, but was repaired and extended by the department some years ago. It is now 251½ feet in total length, with a general width of 16 feet, and a pier-head 28 by 17 feet. At the head there is a depth of 21 feet at high water spring tides.

During 1913-14, the damaged trestle work was replaced with two new blocks and three spans, and the pier-head was levelled up. Stringers and cap were placed on the wharf for a distance of 110 feet, and twelve fenders, averaging 20 feet in length, were placed on the cribwork blocks. The berth alongside the wharf was improved.

Work was begun June 17, and was completed September 18, 1913.

Expenditure, $1,220.78.

LITTLE BLACK RIVER.

Dredging.

The Little Black river, Northumberland county, flows into the main Black river about 2 miles above its mouth on the south side of Miramichi bay, and about 18 miles from Chatham.

To straighten and improve the channel and thus save the expense and delays which occur in moving rafts and scows in the river, a contract was entered into on the 21st July, 1913, with Mr. F. A. Fowlie, for the removal of 31,700 cubic yards, barge measurement, of sand, mud, etc., for 35 cents per cubic yard.

Work was in progress between the 18th July and the 27th November with the dredge *Fowlie*, when 21,929·65 cubic yards, barge measurement, were removed in making a cut 1,300 feet long, 35 to 45 feet wide, and with 2 feet at low water ordinary spring tides across the flats, to cut off a sharp bend in the channel immediately above the river mouth, and a second cut 800 feet long and 30 feet wide with 5 feet at low water across a second bend. From the latter cut to the highway bridge, a distance of 600 feet, the channel was deepened to 5 feet at low water for a width of 30 feet. The upper 100 feet of this channel was widened to 90 feet with a depth of 5 feet at low water for a turning basin for scows.

The expenditure, including $364.38 for inspection, was $8,039.76.

LITTLE DIPPER HARBOUR.

Little Dipper Harbour, St. John county, is a fishing station 20 miles southwest of St. John and 1½ mile distant, by water, from Chance harbour.

On the 15th of December, 1913, a contract was let to the Maritime Dredging and Construction Company for the construction of a cribwork breakwater 454 feet long and 24 feet wide, with an average depth of 8 feet. The proposed work is to close a gap between the mainland and Crow island, and afford protection to small wharves and fish-houses, as well as several boats.

Work will not be begun until next fiscal year.

A sum of $50 was granted to be paid to Mr. David Thompson for land required for a right of way.

LITTLE GULLY.

Little Gully, Kent county, so called, was an opening through the south beach into the southern end of Richibucto harbour, about 3 miles from the main entrance, and was used as a convenient passage for fishing boats.

Of late years, however, the water at the "Little Gully" has gradually shoaled, through the movement of the sand beach, until this year the gully was completely blocked.

Between the 15th and 23rd April, 1913, cuts were made across the sand bars about 10 feet wide, 3 to 4 feet deep, and with a total length of 400 feet to give a temporary entrance for boats, but the current from the inside was not sufficient to maintain the cuts which were soon filled with sand.

Surveys were made to determine the extent of dredging and works required to reopen the Little Gully.

The expenditure for the fiscal year 1913-14 was $221.50.

LITTLE LAMEQUE.

Little Lameque, Gloucester county, is a fishing settlement on Shippigan island about 4 miles northerly by road from Lameque. The value of codfish and lobster fisheries is about $25,000 annually.

On the 30th April, 1912, a contract was entered into with Mr. H. G. Beresford, of St. John, for the construction of a wharf. The contract price is $24,890.

Work began on the 21st May, 1913, and by the 9th February, 1914, when the work closed down, the wharf to be complete required only the ring bolts, some additional bolting in fenders, covering, cap, etc., and other small details.

It consists of a shore block 120 feet long and 20 feet wide, twenty-eight blocks 25 by 20 feet, and twenty-nine spans 20 by 20 feet, one block 25 by 30 feet, one span 20 by 30 feet and a pier-head 30 by 50 feet.

The expenditure for the fiscal year 1913-14, and the total to date, was $22,875.50, including $654.50 for inspection.

LOGGIEVILLE.

Loggieville, Northumberland county, is situated on the south shore of the Miramichi river, 5 miles below Chatham. It is the terminus of the Fredericton branch of the Intercolonial railway.

Between the 7th and 17th June, dredging was done by the *Hayward*, under agreement with the Northern Dredging and Construction Company, along the eastern side of the Government wharf, to form a berth and basin for scows, schooners, etc., 126 feet long by 130 feet wide, with a depth of 8 feet at low water ordinary spring tides.

The material removed within correct lines and grades amounted to 4,155 cubic yards, place measurement, and the cost, at 30 cents per cubic yard and including $30.80 for inspection, was $1,246.50.

The quantity removed measured in the barges was 6,129 cubic yards, considerable dredging having been done below grade.

LORD'S COVE.

Lord's Cove, a small fishing station on Deer island (part of the county of Charlotte) is a port of call for steamers plying between St. Stephen, St. Andrews, Eastport and other points in Passamaquoddy bay. At Lord's Cove, the department began the construction of a wharf in 1900-1, to afford facilties for steamers. The wharf is a pile and trestle work, 328 feet long and 21 feet wide, with a pier-head 50 by 40 feet, standing in 29 feet at high water. The stone approach is 28 feet in length.

During 1913-14, the covering, cap and part of the stringers were removed and replaced, and the wharf was repaired to such an extent that it would be used for traffic. During February, 1914, twenty-five piles, from 35 to 55 feet long, were purchased for improvements to the wharf next season.

Work was begun August 1, and completed September 30, 1913.

Expenditure, $1,442.

LORNEVILLE.

Lorneville, St. John county, is a well-known fishing settlement 10 miles west of St. John. At this place there are about eighty salmon fishing boats. The population is about 300. Spring tides rise 25 feet. In 1909, the department built a combined breakwater and wharf, consisting of an approach of round cribwork, sheathed on the outside, 300 feet long and 24 feet wide on top, and a pier-head, 100 feet long and 32 feet wide, which was detached from the main work in a storm.

On the 27th August, 1912, a contract was let for the construction of an extension to the breakwater, consisting generally of a cribwork structure filled with stone ballast, connecting the approach with and overlapping the pier-head, and making the pier-head of an irregular shape, with sides, 142, 31, 87, 100, and 23 feet long, respectively. The work is 34 feet high at the outer end, and there is a depth of 4 feet at low water at the face. The work was commenced on the 24th of March, and was completed on the 29th of November, 1913.

Expenditure, $35,589.68.

McALPINE'S.

Dredging.

McAlpine's is on the east bank of the St. John river about 14 miles from St. John and 40 miles below Fredericton, in Queens county. Dredging was performed for the purpose of cleaning up the basin in front of the wharf to a depth of 11 feet below low water.

After completing the work at Gunter's the dredge *New Brunswick No. 1* proceeded to McAlpine's, where work was commenced on August 18 and finished August 20, 1,156·6 cubic yards, place measurement, of clay and rock, class "B" material being removed, at 30 cents per cubic yard.

MACE'S BAY.

Belas Basin, Charlotte county, a cove of Mace's bay, 25 miles, as the crow flies, west of St. John, but farther by road, is defended from the sea by a beach, 1,700 feet long, and is dry at low water. The work, begun in 1909-10, is a block and span wharf of round cribwork, 156 feet in total length, consisting of 118 feet of cribwork and 38 feet of stone approach, the whole, 17 feet wide. The pier-head stands in 14 feet at high water.

During the month of September, 1913, six new fenders were placed on the face of the wharf.

Expenditure, $51.75.

MARBLE COVE.

Dredging.

Marble cove is located on the eastern shore of the St. John river, just above the Reversible falls, in St. John county.

This dredging was performed in order to provide an entrance to the cove, 11 feet deep, and clean up a small portion of the basin to 7 feet below low water.

The dredge *New Brunswick No. 1*, of the New Brunswick Construction Co., commenced work here on the 29th March, 1913, and finished on May 7, removing 15,870.6 cubic yards, place measurement, of class "B" material at 24 cents per yard, an expenditure of $3,809.42. Wreckage, consisting of a sunken hull, was also removed after 16½ hours work at $19 per hour, an expenditure of $313.50, making a total expenditure of $4,122.92. During the two days, March 29 and 31 of the fiscal year 1912-13, the dredge removed 976.1 cubic yards, place measurement, leaving the removal for 1913-14, 14,894.5 cubic yards, place measurement.

The total expenditure, including inspection, for the fiscal year ending 31st March, 1914, amounted to $3,887.94.

MILLS POINT.

Mills point, Northumberland county, lies on the southern side of Miramichi bay, about 27 miles east of Chatham.

During the fiscal year 1913-14, a few broken planks were renewed in the covering of the wharf at a cost, for labour and spikes, of $5.50.

The total expenditure to date has been $20,740.93.

MIRAMICHI BAY.

Dredging.

The Horse-shoe shoal lies at the entrance to the inner Miramichi bay, and between Portage and Fox islands. The Lump lies in the outer bay, about 2 miles inside the outer end of the ship channel. The distance between the two shoals is about 4 miles. These shoals were the worst obstacles to navigation for the shipping of the Miramichi river which, in 1912, amounted to 498 vessels of 192,040 tons.

At the Horse-shoe, dredging was in progress in 1910 and 1911, as well as at different times in former years, to give a channel 200 to 250 feet wide across the shoal, which is about 4,500 feet long, with a depth of 22 feet at low water ordinary spring tides.

A number of shoal spots were deepened by the dredge *Restigouche* during the past season, but the work was not fully completed. The ruling depth is about 20 feet at low water ordinary spring tides.

At The Lump, dredging in 1910, 1911, and 1913, produced a depth of 22 feet throughout the shoal in a cut 300 feet wide. The length of this shoal is about 1 mile.

The *Restigouche* or dredge No. 3 worked on *The Lump* between the 24th and 30th July, the 6th and 7th August, and on the 15th August, 1913, removing 19,698 cubic yards of fine sand, and on Horse-shoe between the 31st July and 5th August, the 8th and 14th August, and the 16th and 22nd August, 1913, removing 28,144 cubic yards of sand and gravel.

MISCOU.

Miscou island, Gloucester county, about 9 miles long by 4½ wide, forms the extreme northeastern corner of the province of New Brunswick. The population is about 500. The chief occupation is fishing, which is carried on extensively.

A public wharf was constructed in 1905 at Miscou harbour, the general landing place for the island.

During 1911 and 1912, the wharf was extended to a total length of 1,776 feet.

As the depth was still insufficient to enable vessels to reach the wharf at all times of tide, it was proposed to close-pile the two blocks comprising the pied-head, and afterwards to dredge suitable berths and approaches.

Work was in progress between the 10th December, 1913, and the 30th January, 1914, and on the 6th and 11th March, when about one hundred and fifty 28-foot piles were driven across the outer end of the wharf and along the sides of the outer two blocks and span, a total length of 200 feet.

The expenditure for the fiscal year 1913-14 was $890.03.

MISPEC.

Mispec, St. John county, about 8 miles east of St. John, is a narrow tidal inlet in the rocky coast of the Bay of Fundy, at the head of which a pulp-mill has been built. The department built two piers at Mispec for the protection of barges engaged in carrying supplies to and pulp from the mill. The east pier is 228 feet long, 34 feet wide on top and 30 feet high. The pier on the west side is 198 feet long and 20 feet wide on top, standing in 23 feet at high water.

During 1913-14, the sloping face on the eastern breakwater was repaired for a length of 40 feet by replacing double face-timbers and covering with new sheathing. Eight fenders, removed by a storm, were also replaced.

Work was begun May 19 and completed June 16, 1913.

Expenditure, $649.53.

NEGUAC.

Neguac, Northumberland county, lies at the northern end of the Miramichi bay, about 27 miles from Chatham.

The public wharf, built by the department in 1892 to 1894, is the terminal point for trips of the daily river steamer, and freight is landed here for the districts of Neguac, Tabusintac, etc.

Between the 21st June and the 20th August, 1913, a crib which was built nine tiers high, in 1912-13, for an enlargement of the pier-head, was placed in position, filled with ballast, built up to full height and connected with the old pier-head by a span 62 by 18 feet. The block is 62 by 20 feet on top, and is about 15¾ feet high.

The expenditure for the fiscal year 1913-14 was $1,238.30.

NEWCASTLE.

Newcastle, Northumberland county, the shire-town of the county, is situated on the north bank of the Miramichi river, about 17 miles above its mouth.

During the fiscal year 1913-14, contract plans were prepared for a new wharf to give deep-water shipping facilities for the Intercolonial railway and for general shipments of lumber, etc.

Dredging.

The Park, Desmond, Ritchie, and Russell wharves, lie together in the centre of the town waterfront, and have a total length of 304 feet.

During 1913, under agreement with the Northern Dredging & Construction Co., a berth, 325 feet long, 60 to 75 feet wide, and with 21 to 22 feet at low water ordinary spring tides was dredged along the face of the wharves, and inside this berth and closer to the Park wharf a strip 130 feet long and 30 feet wide was dredged to 17 to 22 feet, to provide berths for lumber, coal and salt vessels, etc.

The dredge *Hayward* was at work between the 26th and 29th May, and the *Invader* on the 3rd and 4th June, and between the 12th June and 15th July, removing 9,734 cubic yards, place measurement, from within the lines and grades, or a total of 15,371·6 cubic yards measured in the scows.

The expenditure, including $108.25 for inspection, was $3,028.25.

NORTH HEAD.

North Head is the principal port of the island of Grand Manan, a celebrated fishing station, forming part of the county of Charlotte, lying 24 miles south of St. Andrews, but double that distance from St. John. A wharf, known as Dixon's, at Flagg's cove, near North Head, was purchased by the department in 1906-7, and has since been repaired and extended. The present breakwater wharf consists of square cribwork, about 400 feet long, 25 feet wide on top, with a battered face on the weather side, and has 11 feet at low water at the outer end. Spring tides rise 23 feet.

On the 28th of November, 1912, a contract was let for the construction of an extension to the present breakwater, 100 feet long on the centre line and 38 feet wide on top, of square cribwork, sheathed on the seaward face. The work was begun on the 17th of April and was completed on the 4th of December, 1913.

Expenditure, $31,641.91.

NORTHWEST MIRAMICHI RIVER.

Dredging.

The shoals are located on the upper 4 miles of the navigable section, and 11 to 15 miles above Newcastle. A large amount of lumber, lumbermen's supplies, etc., are rafted or scowed on the river, and a least depth of 5 feet at low water is required for the towboats, as well as for the river steamer making daily trips to the head of navigation.

On the 18th August, 1913, a contract was entered into with Mr. Peter England for dredging on this river to the extent of 19,900 cubic yards of sand, mill refuse, etc. The contract price is 37 cents per cubic yard, scow measurement.

Under this contract, the dredge *Peter England* was at work from 19th August to the 1st November, 1913, in making a cut 100 feet wide and 770 feet long with 5 to 6 feet at low water ordinary spring tides across the lower shoal, Mullin's wharf bar, where the channel crosses the river, and a cut 70 to 100 feet wide and 1,320 feet long with 4·5 to 6 feet at low water at the second shoal, at Cassilis, but the dredging at this shoal was not completed in a small area where there are still depths of 4·5 to 5 feet.

The quantity removed, at the lower shoal, was 4,016·9 cubic yards and, at Cassils, 8,976·9 cubic yards, barge measurement. The balance of the dredging is required at the two upper shoals.

The cost of the work, including $180.50 for inspection, was $4,988.21.

OROMOCTO SHOALS.

Dredging.

Oromocto shoals is situated in Sunbury county, about 12 miles below Fredericton on the river St. John.

The dredging was for the purpose of cleaning up the channel to a depth of 12 feet below low water.

The departmental dredge *No. 12* began dredging on September 2, 1913, and after removing 32,810 cubic yards, scow measurement, suspended work on November 8, 1913. The material removed consisted of sand.

PERRY POINT.

Dredging.

Perry point is on the northern bank of the Kennebecasis river in Kings county.

Dredging was commenced here on November 2, 1913, and suspended owing to close of navigation on the 25th after the removal of 19,758·6 cubic yards, scow measurement, of class "B" material at 19½ cents per yard, and an old pier containing approximately 333 cubic yards, place measurement, which was paid for at the rate of $26.03 per hour. The material removed consisted of mud, clay, gravel and sawdust.

Work was commenced here on May 23, and completed on June 4, 1913. The dredging was performed in order to provide a channel approximately 1,900 feet long, 75 feet wide and 9 feet deep. 14,615·4 cubic yards, scow measurement, of class "B" material were removed at 19½ cents per yard. Work was performed by the dredge *Beacon Bar* of the Maritime Dredging and Construction Company.

The total expenditure, including inspection, for the year ending March 31, 1914, amounted to $2,888.67.

POINT DU CHÊNE.

Point du Chêne, Westmorland county, lies on the southeast side of Shediac harbour. It is a terminus of a branch of the Intercolonial railway and for the steamer *Empress*, running during the season of navigation, from Summerside, P.E.I.

Between the 17th June and 22nd September, 1913, the pile retaining wall, built in 1912 behind the ballast wharf to prevent gravel, etc., being washed into the harbour, was filled with brush and stone, which was surfaced with gravel obtained by levelling off the interior of the ballast wharf. The retaining wall is 255 feet long, and the space behind it, which was graded to the level of the ballast wharf, was about 35 feet wide.

The stone deposited in previous years along the outside of the inner breakwater, 600 feet long, was relaid to form an even slope. Fenders were placed around the small block outside the outer breakwater, and creosoted piles were driven across the end of the breakwater.

The expenditure for the fiscal year 1913-14 was $980.45.

POINT SAPIN.

Point Sapin, Kent county, is a fishing and farming settlement of about 300 inhabitants on the Northumberland strait, about 8 miles south of the entrance to Miramichi bay. The district is dependent on water transport, being about 34 miles by road from the nearest railway. The value of the fisheries is about $20,000 to $30,000 annually.

In the spring of 1913, the timber forms around the concrete wave-break of the breakwater, built by contract in the previous year, were removed; $13 was expended for extra ballast placed outside the breakwater to fill a small hole in the bottom where the current was carrying sand, etc., under the work.

PORTAGE RIVER.

Portage river, Kent county, is a small stream entering the Northumberland strait about 5 miles south of Point Sapin and 6 miles north of Kouchibouguac.

It is proposed to dam the present river entrance which is winding, shallow, and unstable, and to cut a direct entrance, protected with breakwaters and breastworks, through the sand beach, which will provide a safe and convenient harbour for the fishing boat and enable considerable quantities of lumber to be towed out. The annual value of the fish and lumber trade is about $23,000.

During the fiscal year 1913-14, a pile-driver was built and 224 piles driven for breastworks 320 feet long on the south and 344 feet long on the north side of the proposed new entrance; 150 braces were bolted to the main piles and the brace piles in the rear, two 6 by 6-inch waling were placed on each side, and 3-inch sheet piling was driven for a length of 226 feet; 1,900 lineal feet of fascines were made for mattresses, 15 cubic yards of sand were removed from the inner end of the proposed entrance. A building 16 by 18 feet for lodging the men, and one 16 by 14 feet for a stable were erected.

Work was in progress between the 1st and 18th August, the 2nd and 8th September, the 15th September and 11th October, the 22nd and 24th October, and between the 28th October and 3rd December.

The expenditure for the fiscal year 1913-14 was $1,968.35.

PUBLIC LANDING.

Dredging.

Public Landing is situated on the west side of the St. John river, about 12 miles above St. John.

This dredging was required to give deeper water at the sides of the graded wharf.

The dredge *New Brunswick No. 1,* of the New Brunswick Construction Company, commenced work on October 24, and completed same October 28.

A total of 1,489·0 cubic yards, place measurement, of class "B" material were removed at 28 cents per yard. The material consisted of stone, sand and mud.

The total expenditure, including inspection, for the fiscal year ending March 31, 1914, amounted to $436.34.

QUACO.

Quaco, or St. Martins, St. John county, situated on the Bay of Fundy, 34 miles east of St. John, is the terminus of a branch railway, and the seat of several saw-mills. Five million feet of lumber are shipped from this place annually, which does not include shipments of the Pejepscot Paper Company. The population of the parish of St. Martins is about 2,000 people. At Quaco, inside low-water mark, a pier of close-face cribwork was built on either side of the outlet of a moderate stream, in order to give shelter to vessels at high water. The pier on the east side is 554 feet long and 20 feet wide, with a depth of 23½ feet at high water at the end. The west pier is 302 feet long and 20 feet wide on top. Spring tides rise 30 feet.

On the 19th of May, 1913, a contract was let for the construction of a wharf, consisting of two cribwork walls, 230 feet and 195 feet long respectively, and 20 feet wide, forming a right angle. The space inclosed by these walls is to be filled with gravel and earth. Work was begun on the 21st of May, 1913, and by the 10th of December, when the work was suspended until the spring, the wharf had been been completed with the exception of a small portion of the cap, covering, filling, and close-piling.

During 1913-14, approximately 1,900 cubic yards of ballast were placed in the western breakwater by day labour.

Expenditure, $13,568.94.

Dredging.

A small shoal in front of the wharf under construction at St. Martins or Quaco, was removed and used as filling in the work. The work was done by the contractor for the wharf, at the rate of 70 cents per cubic yard, place measurement.

One hundred and six (106) cubic yards, place measurement, of sand, gravel, clay, and hardpan were removed by means of scrapers, teams and ploughs, making satisfac-

tory berths. The estimated quantity of 200 cubic yards, place measurement, was not reached, because, when excavation was commenced, it was found inadvisable to work to the grade originally proposed, as this would tend to draw the stream against the new wharf, and make scouring possible.

The cost of the work was $74.20.

QUACO WEST.

Quaco West is included in the town of St. Martins 2 miles distant. St. Martins is situated 34 miles east of St. John, and is the terminus of a branch railway. A dam was built at West Quaco in 1892 to turn the outlet of Mosher river, which was wearing the bank and the farm land. The dam had never been repaired and had to be reconstructed.

During 1913-14, a new dam of cribwork, 200 feet long, 12 feet wide on top, with an average height of 7 feet, was completed, sheathed and covered throughout. Brush and ballast have been piled along the toe of the work.

Work was begun September 2, 1913, and completed March 12, 1914, but was not carried on during the winter.

Expenditure, $2,333.33.

REED'S POINT.

Dredging.

Reed's point is located in Kings county, on the northern side of Kennebecasis bay, about 2 miles above Clifton and 2½ miles below Murphy's wharf.

This dredging was performed for the purpose of cleaning up the basin at the face of the wharf to a depth of 9 feet below low water.

Dredging was authorized to be performed here in 1912, but owing to the lateness of the season it was not begun until the 14th May, 1913. Some 2,972·4 cubic yards, scow measurement, of class "B" material were removed, and the work completed on the 20th May. Work was performed by the dredge *New Brunswick No. 1,* of the New Brunswick Construction Company, at the rate of 30 cents per cubic yard, scow measurement. The material removed consisted of gravel and hardpan.

The total expenditure, including inspection, for the fiscal year ending March 31, 1914, amounted to $914.44.

RESTIGOUCHE RIVER.

Dredging.

On 3¾ miles of the Restigouche river, immediately below the Campbellton deep-water wharves, several shoals occur on which frequent dredging is necessary to maintain a sufficient channel for the large amount of deep water shipping which is loaded with lumber at Campbellton.

Between the 23rd June and 5th July, 1913, dredging was done by the *St. Lawrence* or *No. 2,* and between the 29th August and the 1st November by the *Restigouche* or *No. 3,* on the upper section of this channel, the range of Campbellton lights. It covered a length of about 1,100 feet, reaching to within 2,000 feet of the wharves, and on a width of about 150 feet; the depth reached was 16 to 21·8 feet.

The quantities removed were: by the *St. Lawrence,* 4,241 cubic yards, by the *Restigouche,* 41,867 cubic yards, a total of 46,108 cubic yards.

REXTON.

Rexton, Kent county, lies on the Richibucto river, 3 miles above Richibucto.

Between the 18th August and the 1st October, 1913, and between the 25th November, 1913, and the 31st January, 1914, work was in progress on the Rexton wharf in continuation of the work of rebuilding carried on in previous years.

The lower and last section of the wharf, 59½ feet long by 36 feet wide, was rebuilt, the old timbers being removed down to low-water level. New stringers were placed in a 30-foot section of the approach, and the covering was relaid and partly renewed. The outer face of the wharf, 250 feet long, was sheet-piled with 6-inch creosoted planks, 30 to 34 feet long, and the ends and inside face with 6 by 4-inch creosoted planks. The upper 64 feet of the outer face, which had settled about 10 inches, was levelled.

The expenditure for the fiscal year 1913-14 was $2,056.31.

RICHIBUCTO.

Richibucto, the shire-town of Kent county, and the terminus of the Kent Northern railway, has a population of 612. The public wharf at Richibucto was acquired from the municipality in 1908-9.

Between the 18th August and 19th September, and between the 24th September and 19th November, 1913, 308 piles were driven along the dock or upper face, beginning 112 feet from the outer corner at the end of the close piling previously driven.

A cribwork retaining wall 58 feet long, 11 feet wide, and about 8 tiers high, *i.e.*, level on top with the public wharf, was built across the inner end of the dock between the public wharf and the Forbes wharf. The cribwork was filled with ballast and the tops of fenders and cap were painted with carbolineum. The space behind the retaining wall was partly filled with old railway ties.

The expenditure for the fiscal year 1913-14 was $1,498.54.

Dredging.

The Richibucto public wharf lies near the centre of the town waterfront on the Richibucto river, about 3 miles above the mouth.

The public dock, about 50 to 55 feet wide, on the southern side of the public wharf and between it and the Forbes wharf was formerly shallow, the bottom, except in the outer 50 feet, varying from 2 feet above to 2 feet below low water ordinary spring tides.

Under an agreement with Mr. W. E. Forbes, the dredge *St. Louis Star* was at work between 13th May and 10th June, and the dredge *St. Charles* between 12th July and 8th September, in deepening the outer 100 feet to 9·5 to 10 feet; the next 200 feet to 7·3 to 8·5 feet; the next 100 feet to 5 to 6 feet at low water ordinary spring tides.

The dock now provides convenient and sheltered berths for coal schooners, fishing boats, etc.

The material removed was 4,785.09 cubic yards, place measurement, of mud, and the total cost, including $228.55 for inspection and $42.65 for removing logs, etc., was $2,424.49.

The total quantity removed, measured in the scows, was 6,372·3 cubic yards.

ENTRANCE.

Dredging.

The entrance to Richibucto harbour is on the Northumberland strait, about midway between Miramichi bay and Shediac.

Dredging has been carried on here at different times to improve the channel across extensive bars and to give 15 feet at low water or 19 feet at high water ordinary spring tides to enable lumber vessels to take full loads inside the harbour.

Under a contract with the W. J. Poupore Co., Ltd., dated 23rd August, 1911, dredging was continued between the 23rd June and 6th August, 1913, with the dredge *King Edward*, and between the 23rd July and 15th August, 1913, with the dredge *Prince Ito*, when 33,910 cubic yards, barge measurement, of sand were removed.

The total work done under the contract consisted of dredging a channel 3,800 feet long, 100 to 200 feet wide and 13½ to 16½ feet deep at low water.

The cost of the work, at 30 cents per cubic yard, barge measurement, the contract price, including $189.70 for inspection, was $10,362.73.

RICHIBUCTO BEACH.

The Richibucto river enters the Northumberland strait 3 miles below the town of Richibucto, about 26 miles south of Miramichi bay and 40 miles north of Shediac.

Works intended to protect the beaches at each side of the entrance, and to increase, by scour, the depth over the bar outside were begun on the north beach in 1873.

On the 11th December, 1911, a contract was entered into with Mr. Thos. P. Charleson for the construction of breastworks and a breakwater at the south beach.

This work was completed between the 3rd June and 25th July, 1913, by placing about 614 cubic yards of core and slope stone over the outer section of the breakwater. It consists of breastworks 4 feet wide and 300 feet long, built along the shore and composed of pickets driven 6 feet centre to centre in two rows and filled with brush and stone; a breakwater 303 feet long and 12 feet wide on top of which the inner 251 feet is pilework, close-piles on both sides and filled with brush and stone, and the outer 52 feet is composed of a stone embankment with slopes of 2 to 1 laid on a brush mattress which was first secured by 45 piles driven in three rows.

The contract price was $11,895, from which $1,283 was deducted in the final estimate on account of the shoaling of the bottom and consequent smaller amount of materials required to complete the work, than was shown on the contract plan.

The expenditure for the fiscal year 1913-14, was $5,365, including $153 for inspection.

On the 12th February, 1914, tenders were asked for the construction of proposed extensions of the breakwaters on the north and south beaches.

RICHIBUCTO CAPE.

Richibucto Cape, Kent county, lies 6 miles southeast of the entrance to Richibucto harbour, and 5½ miles north of Chockfish river. The distance from Richibucto cape to Prince Edward Island is 14½ miles. The inhabitants of Richibucto cape, Richibucto village, 2 miles inland, and the neighbourhood number about 1,000, engaged in farming and fishing.

The construction of a breakwater at Richibucto cape was begun in 1908.

During the fiscal year 1913-14, the outer 68 feet of the approach, built in 1909, was raised and levelled, six to twelve tiers of timber were laid on the next section, 170 feet long by 20 feet wide, begun in 1912, which was completed, and a block 55 by 30 feet, and twenty-seven tiers high, was built to connect the latter with the pier-head. About five to six tiers of timber were laid over the pier-head, and a wave-break about 330 feet long and four to six tiers high was constructed along the outer face. Stringers were laid on the pier-head and new sections of the approach, and the whole was covered, except on a length of 110 feet at the outer end; 150 lineal feet of cap timber were laid.

A total of 1,865 cubic yards of ballast were quarried and hauled by day labour, and 753 cubic yards were purchased at the work and placed in the breakwater.

Some 196,936 feet b.m. of square, 79,911 feet b.m. of round timber, 27,776 feet b.m. of 4-inch, and 5,595 feet b.m. of 2 and 3-inch plank were purchased.

Work was in progress between the 16th April and 16th December, 1913, the 4th and 16th February, 1914, and the 5th and 30th March, 1914.

The expenditure for the fiscal year 1913-14 was $11,666.15.

RIVER'S MILLS.

Dredging.

River's Mills is about 3 miles above St. John on the left bank of the St. John river in St. John county.

This dredging was for the purpose of removing, to 11 feet below low water, obstructions consisting of old wharves and breakwater used when the mills were in operation.

The dredge *New Brunswick No. 1*, of the New Brunswick Construction Co., commenced work here on September 11 and stopped work on September 25, after removing 7,031·6 cubic yards, scow measurement, of class "B" material at 26 cents per yard. The material consisted of clay, stone and mud. 10,746 cubic yards, scow measurement, of class "B" material are yet to be removed before the work is completed.

The total expenditure, including inspection for the fiscal year ending March 31, 1914, amounted to $1,867.22.

RIVER ST. JOHN AND TRIBUTARIES (TIDAL).

EVANDALE.

Evandale, Kings county, is situated on the St. John river due north of the city of St. John.

A close-face high water wharf is being constructed, work having commenced on August 18, 1913. During the season of 1913-14, work has been done to the value of $3,784.67. The work has been raised to an average height of approximately 10 feet.

Upper Maugerville.

On December 26, 1912, work was commenced on the construction of a high-water wharf at Upper Maugerville, Sunbury county.

This work was performed at a cost of $2,879, the total expenditure for the fiscal year ending March 31, 1914, amounting to $961.91. In order to reach extreme high water, the wharf was raised on the upper side 1½ feet approximatively, at a cost of $312.95.

Brundage's Point.

At Brundage's point, Kings county, a high-water wharf, 144 feet long, 17 feet wide on top, and sloping 2 in 3 is being constructed. Work was commenced on the 20th June, 1913, and suspended on the 18th September.

The total expenditure for the fiscal year ending March 31, 1914, amounted to $2,998.10.

White's Bluff.

On January 27, 1914, Messrs. Fox and Hamilton commenced work on the construction of a low-water wharf at White's Bluff, Kings county. Work on the pier-head and approach is progressing favourably and some ballast has been placed on the outer end. The wharf will extend out 365 feet from low water, and will be 75 feet wide at face to 11 foot depth of water.

The expenditure for the fiscal year ending March 31, 1914, amounted to $1,822.54.

RIVER ST. JOHN (UPPER).

Baker Brook.

Beginning at about 6 miles from the mouth of Baker brook, Madawaska county, obstructions were removed from the channel for a distance of about 4½ miles, forty-two boulders measuring from 27 cubic feet to 36 feet were blasted, twenty-seven smaller ones being removed by team, and a new channel 200 feet long, 6 feet wide and 4 feet deep was cut 20 rods from the mouth of the river.

Work was commenced on 6th October, 1913, and was completed on 5th November.

The total expenditure for the fiscal year ending March 31, 1914, amounted to $200.65.

Baker Lake.

The work performed this season at Baker Lake, Madawaska county, consisted in the addition to ballast and flooring together with plank flooring to the wharf which was constructed but not quite completed last fiscal year.

Work was commenced on 1st July, 1913, and was completed on the 19th of the same month. The expenditure amounted to $99.65.

At this place also a breakwater 110 feet long, 6 feet wide and 446 feet high was filled with rocks.

This work was commenced on 28th December, 1913, and finished on 7th January, 1914, the expenditure being $101.

The total expenditure at Baker Lake for the fiscal year ending March 31, 1914, amounted to $200.65.

Grand River (Madawaska county).

Two boulders measuring 216 cubic feet each were blasted and the river worked for a distance of about 17 miles. At different places along the river, fifty boulders were blasted and obstructions removed from the channel of the river.

Work was commenced on 5th August, 1913, and was completed on 10th September, 1913.

The total expenditure for the fiscal year ending March 31, 1914, amounted to $401.40.

Green River (Madawaska).

The channel of the river was cleared of boulders and obstructions for a distance of about 18 miles, twenty-eight boulders were blasted measuring abont 15 cubic yards. A tow-path was also cut for a distance of 25 rods.

Work was commenced on 21st July, 1913, and was completed on the 31st of the same month.

The expenditure amounted to $190.45.

The channel of this river was cleared for a further distance of 6 miles, two boulders measuring 160 and 217 cubic feet having been blasted at Second Falls.

Work was commenced ou 18th August, 1913, and was completed on the 29th of the same month.

The expenditure amounted to $205.35.

The total expenditure for work performed on the Green river for the fiscal year ending March 31, 1914, amounted to $395.80.

Iroquois River (Madawaska county).

At a distance of 25 miles from the mouth of this river, a new channel was cut 95 feet long, 18 feet wide and 5 feet deep.

Work was commenced on 17th July, 1913, and was completed on the 25th of the same month.

The expenditure during the period July 17th to 25th amounted to $57.69.

Along this river new channels were cut at four different places measuring about 547 feet long, 12 feet wide and 3 feet deep. Fifteen boulders were blasted measuring 15 cubic yards, the river being worked for a distance of 2 miles.

Work was commenced on 29th July, 1913, and was completed on the 29th August, 1913.

The expenditure during this period amounted to $225.55.

Boulders were blasted in a rapid 30 miles from the mouth of the river, and rocks were removed from channel, the river being worked for a distance of one mile.

Work was commenced on 8th September, 1913, and was completed on the 23rd of the same month.

The expenditure during this period amounted to $119.13.

The total expenditure for the work performed on the Iroquois river for the fiscal year ending March 31, 1914, amounted to $402.37.

Little St. Francis River (Madawaska county).

Boulders were blasted and obstructions removed from the channel of this river for a distance of about 6 miles. A breakwater was built at 4½ miles from the mouth of the river, and 3½ miles from the mouth a new channel was cut.

Work was commenced on 17th November, 1913, and completed on 4th December, 1913.

The total expenditure for the fiscal year ending March 31, 1914, amounted to $198.87.

RIVER ST. JOHN AND TRIBUTARIES.

(UPPER MAIN RIVER).

Above Grand Falls.

At this place, a breakwater was built on the St. John river above Edmunston, 180 feet long, 4½ feet high and 10 feet wide, filled with rocks.

Work was commenced on 16th December, and was completed on the 27th December, 1913.

The total expenditure for the fiscal year ending March 31, 1914, amounted to $199.88.

Below Grand Falls (Victoria county).

Work was performed on the main river between Grand Falls and Aroostook, 7 boulders measuring about 80 cubic yards being blasted, 3 miles above the mouth of the Aroostook river.

This work was commenced on 30th August, 1913, and completed on 30th September.

The expenditure during this period amounted to $153.16.

Work was performed on the main St. John river between Grand Falls and Aroostook, blasting about 85 cubic yards at Tobique Rock, 3 miles below Perth.

Work was commenced on November 17, and completed November 29, 1913, the expenditure for this period being $206.26.

The total expenditure for the fiscal year ending March 31, 1914, on main river, below Grand Falls, amounted to $359.42.

Quisibus River (Madawaska county).

At a distance of about 6½ miles from the mouth of this river a new channel was cut measuring 185 feet long, 20 feet wide and 3 feet deep. At about 10 miles from the mouth, another channel 107 rods long, 20 feet wide and 2½ feet deep was cut. Obstructions were removed from different places along the river for a distance of 7 miles.

Work was commenced on 29th July, 1913, and was completed on 9th August, 1913.

The total expenditure for the fiscal year ending March 31, 1914, amounted to $190.94.

Seigas River (Madawaska county).

At this place, about 3 miles from the mouth of the river, a new channel was cut measuring 170 feet long, 2 feet wide and 4 feet deep; one-half mile farther up another measuring 165 feet long, 12 feet wide and 4 feet deep was cut. Blasting and the removal of obstructions from the river was done for a distance of 13 miles.

Work was commenced on 4th August, 1913, and was completed on 23rd of the same month.

The total expenditure for the fiscal year ending March 31, 1914, amounted to $149.90.

St. Francis River (Madawaska county).

At this place the channel at the mouth of the river was deepened for a distance of 55 rods, and rocks were removed at Cross Lake rapids, 16 miles from the mouth of the river.

Work was commenced on 6th October, 1913, and was completed on 11th of the same month.

The total expenditure for the fiscal year ending March 31, 1914, amounted to $99.88.

Tobique River (Victoria County).

At Riley brook, on the Tobique river, 28 miles above Plaster Rock, a breakwater was built 340 feet long, 10 feet high and 8 feet wide, well loaded with rocks.

Work was commenced on 1st September, 1913, and was completed on the 20th of the same month.

The expenditure for this period amounted to $397.66.

A breakwater 75 feet long, 20 feet wide, and 8 feet high, was built 15 miles above Plaster Rock, being well loaded with rock.

Work was commenced on 24th September, 1913, and was completed on 4th October, 1913.

The expenditure for this period amounted to $147.89.

A breakwater was constructed 105 feet long, 20 feet wide, 8 feet high, well loaded with rocks.

Work was commenced on 6th October, 1913, and was completed on 16th of the same month.

The expenditure for this period amounted to $169.32.

Three new channels were cut, of the following dimensions: First, 280 feet long, 12 feet wide and 3 feet deep; second, 300 feet long, 12 feet wide and 3 feet deep; third, 340 feet long, 12 feet wide and 3 feet deep.

Work was commenced on 8th September, and completed on 15th October, 1913.

The expenditure for this period amounted to $615.45.

Three breakwaters were constructed, of the following dimensions: First, 140 feet long, 7 feet high and 12 feet wide; second, 180 feet long, 7 feet high and 12 feet wide; third, 200 feet long, 7½ feet high and 14 feet wide.

Work was commenced on 1st December and completed on 3rd January, 1914.

The expenditure for this period amounted to $645.50.

The total expenditure for the fiscal year ending March 31, 1914, amounted to $1,975.82.

Trout River (Madawaska County).

Three breakwaters were constructed and filled with rocks, the dimensions being as follows: First, 172 feet long, 8 wide and 4½ feet high; second, 160 feet long, 6 wide and 3 feet high; third, 180 feet long, 6 wide and 2½ feet high.

Work was commenced on 5th January, 1914, and finished on 7th March.

The total expenditure for the fiscal year ending March 31, 1914 amounted to $394.33.

During this fiscal year ending March 31, 1914, the total expenditure on the Upper St. John River and Tributaries, amounted to $6,101.

ST. ANDREWS.

St. Andrews, Charlotte county, is a terminus of a branch of the Canadian Pacific railway, and lies, by water, 50 miles west of St. John. An extension of the public, or what is known as the market wharf, was built by the department a few years ago. The extension consisted of a pile approach 468 feet long and a pier-head of square crib-work, 36 by 70 feet. There is a depth of 34 feet at high water at the end of the pier-head.

In August, 1913, the weights and chains on the scow of the floating slip were replaced. The chains were rusted away by salt water, and parted, dropping the weights and allowing the slip to go adrift. In October, the floating slip was removed, so that the site might be dredged over, and a rusty chain was replaced.

Expenditure, $65.06.

Dredging.

On 28th July, 1913, a contract was let to the Maritime Dredging and Construction Company, Limited, for the removal of 25,090 cubic yards, scow measurement, class "B" material, at 40 cents per cubic yard. The work involved was the completion of the eastern channel to 12 feet at low water, a 15-foot basin in front of the Canadian Pacific Railway Company's wharf, and a basin, extending 200 feet west of the public wharf, to a depth of 10 feet at low water.

During 1913, an area of approximately 260,000 square feet was dredged over. From the 29th of September to the 3rd of November, 1913, the Maritime Dredging and Construction Company's dredge *Iroquois* removed 24,953·7 cubic yards, barge measurement of mud, sand, gravel, hardpan, rocks, hard sand and coal ashes.

The cost of the work was $9,981.48.

ST. CHARLES RIVER.

Dredging.

The St. Charles or Big Aldouane river, Kent county, flows into the northwest arm of Richibucto harbour about 4 miles northwest of Richibucto.

It is navigable for small boats for about 5 miles above the mouth. In the upper 2 miles of this distance, eight shoals occur with least depths of 1 to 2½ feet at low water. Dredging has been asked for at these points to enable scowloads of shell mud, used as a fertilizer, to be delivered at the farms along the river and at a storage point at the head of navigation.

A small dredge was hired for $14 per day, including wages of engineer and cost of oil and gasoline, and dredging was begun on the 11th September, 1913. By the 19th November, when work closed down for the season, about 4,170 cubic yards of sand had been removed in making cuts with a total length of 1,600 feet, about 30 feet wide and with three feet at low water ordinary spring tides aross the three lower shoals. Three training walls or dams were also built of brush and stone, one at each shoal to direct the current through the new cuts. The training walls are 100 and 150 feet long by 6 feet wide and 3 feet high, and 200 feet long by 4 to 5 feet wide and 2 feet high.

The expenditure for the fiscal year 1913-14 was $1,094.25.

ST. CROIX RIVER.

Dredging.

In 1911, an arrangement was entered into with the United States Government, whereby the Public Works Department of Canada agreed to contribute 10 per cent of the cost of dredging a channel in the St. Croix river, which forms part of the boundary line between New Brunswick, Canada, and Maine, United States. The total estimated quantity to be removed is 443,835 yards.

On the 9th of February, 1912, the United States Government entered into a contract with the Bay State Dredging Company, of Boston, Mass., for the first instalment of dredging, namely, 226,920 cubic yards. Work was begun on the 17th of May, 1912, and on the 27th of September, 1913, the dredging covered by the first contract was completed. The total quantity removed under the first contract was 237,420 cubic yards, scow measurement.

On the 22nd of September, 1913, the United States Government entered into a second contract, with the Bay State Dredging Company for the removal of 140,000 cubic yards, scow measurement. The work to be done consists in continuing the improvement of St. Croix river by dredging a channel to 9 feet at mean low water, from the upper end of the section covered by the first contract, to the widening in the channel opposite the public landing at St. Stephen.

During 1913-14, the Bay State Dredging Company's dredge *No. 4* removed a total quantity of 178,350 cubic yards, scow measurement; or 109,541 cubic yards under the first contract, and 68,809 cubic yards under the second contract. Work was carried on between the 5th of May and the 8th of December, 1913. The material removed consisted of mill waste, mud, clay, sawdust, gravel, logs and sand.

Canada's share of the cost of the dredging done in 1913-14, was as follows:—

10 per cent of	109,541 cubic yards at 32¼ cents..	$35,326 97	$4,848 67.
	68,809 cubic yards at 19⅛ cents ..	13,159 72	
		$48,486 69	

Payment of Canada's share will not be made until the completion of the whole project.

ST. GEORGE.

At St. George, situated at the head of tide on the Magaguadavic river, there are several granite mills, and there is also a pulp-mill and some saw-mills. Pulp and lumber are shipped by water. The population of St. George is about 1,630. Spring tides rise 23½ feet.

On the 7th of July, 1913, a contract was let to Mr. J. S. Gregory for the removal of 43,000 cubic yards, scow measurement, class "B" material at 50 cents per cubic yard, to provide a channel allowing an 8-foot draught at low water from St. George to Passamaquoddy bay, with a basin of the same depth, 400 feet by 200 feet, at the wharf at St. George.

During 1913-14, the channel, 75 feet wide, was dredged for a length of 3,600 feet and to an average depth of 7 feet below low water. The basin at the wharf was also dredged to an average depth of 7 feet. The area dredged over was approximately 350,000 square feet.

From the 17th of July to the 1st of December, 1913, the dredges *Keta* and *Asp* removed a total quantity of 43,070 cubic yards, scow measurement, of edgings, slabs, sand, gravel, and rocks.

The total cost of the dredging was $22,377.91, including $842.61 for extra haul to the dumping ground.

ST. JOHN.

Beacon Bar.

On the 12th December, 1911, a contract was entered into with Mr. M. Connolly for the construction of 1,960 lineal feet, face measurements, of cribwork, 42½ feet high, to be sunk in 34 feet of water at low tide, and reaching the level of 8½ feet above low tide, on which a concrete superstructure 22½ feet high is to be built to the level of 4 feet above high water spring tide; spring tides rise 27 feet.

During the month of June, 1912, public tenders were called for an additional length of 1,660 feet of the same class of work; the contract was awarded to the same contractor. The total length of continuous lines of cribwork and concrete superstructure being 3,620 feet, forming three berths, the contracts are at schedule rates, and the estimated cost was $1,335,569; work was commenced in June, 1912. The first contract was to be completed in December, 1913, and the second in December, 1914.

During the fiscal year 1912-13, 628 feet of cribwork were sunk in place, no other part of the work being performed; the amount paid to the contractor was $181,894.68.

During the fiscal year 1913-14, 902 feet of cribwork were sunk and partly ballasted, and the concrete superstructure partly built over a length of 284 feet, a total of 2,898 cubic yards.

On the 8th December, 1913, during a very severe storm, two cribs, forming a total length of 443 feet, were partly carried away; these cribs had been sunk only a few days previous to the storm, and were not fully ballasted; they parted near the level of the ballast, their bottom remaining in place.

As the first contract was not completed at the date specified, and it being evident that Mr. Connolly could not complete the second contract as agreed, the department decided to cancel his contracts and accept the offer of the Maritime Dredging and Construction Company to complete the works at the same rates of the first contract, and on the basis of cost plus 15 per cent for any works partly done, including the removal of bottoms of the broken cribs, replacing the parts of cribs carried away by the storm, levelling the cribs already sunk, completing the ballasting, etc., etc.

A settlement was arrived at with Mr. Connolly before the end of the fiscal year, and the present contractors started their work in the month of April. The amount expended during the fiscal year was $442,396.20.

The season's work started May 8 and closed December 6; the ballasting was continued during the winter.

Dredging.

Work on the contract let on 10th of May, 1909, to the Maritime Dredging and Construction Company, for dredging the sites of proposed deep-water berths at Beacon Bar, St. John harbour, was continued during 1913-14, an area of approximately 2,000,000 square feet being dredged over. The proposed depth is 32 feet at low water in the berths, and 36 feet at low water over the crib sites. The Spit Beacon light was destroyed by burning, and the foundation was removed by the dredges at work on Beacon Bar contract.

Six dredges, the *Beacon Bar, Beaver, Cynthia, Iroquois, St. John,* and *Keta,* were employed on the work during 1913-14, but were not in operation continuously.

From the 1st of April, 1913, to the 31st of March, 1914, a quantity of 2,276,049·7 cubic yards, scow measurement, of class "B" and 9·07 cubic yards of class "A" material were removed; the material consisted of gravel, sand, clay and boulders.

The cost of the work during 1913-14 was as follows:—

2,276,049·7 cubic yards Class "B" at $0·395	$899,039.63
9·07 cubic yards Class "A" at $4.90	44.44
Total	$899,084.07

Reconstruction of part of C. P. Ry. Wharf.

In connection with the construction of the new wharves on the Beacon Bar, 90 feet of the old wharf, adjoining, had to be removed and rebuilt. The work consists of a pile substructure and a cribwork superstructure. The contract was let to Mr. M. Connolly in August, 1912. This work necessitated moving one of the sheds and remodelling the boiler house and plant. In addition to the contract price, anchor piles were driven and birch fenders were placed on the outer face.

The expenditure on this work during the fiscal year was $13,797.31.

Protection Works for the C. P. Ry. Co.'s Grain Elevator.

According to an agreement dated 1st July, 1912, a parcel of the Government beach property at West St. John, containing 279,000 square feet was leased to the C. P. Ry. Co. for the construction of a grain elevator. In order to protect the elevator site, the department agreed to pay for a retaining wall to be built on a length of 1,267 feet, and for the back-filling from the wall to the high water shore line; the work was done by the C. P. Ry. Company at the prices previously estimated by the Department.

The retaining wall consists of timber cribwork of 12- by 12-inch timber, substantially built, approximately 20 feet high; the outer toe of the wall is protected by stone mound.

The expenditure on this work during the fiscal year was:—

On the cribwork	$30,500.00
On back filling	31,000.00
	$61,500.00

Back-filling for wharves.

On the 1st February, 1913, a contract with the Maritime Dredging and Construction Company for earth filling at the back of the lines of cribwork and concrete superstructure, being built on the Beacon Bar, for the price of 15 cents per cubic yard; the total quantity of filling required being approximately 1,500,000 cubic yards. Only a small quantity had been done at the end of the last fiscal year. During the fiscal year 1913-14, the filling completed amounted to 465,160 cubic yards.

The amount paid was $63,431.25.

Shipping Galleries.

In order to facilitate the shipping of grain from berths Nos. 5 and 6 of the Sand Point basin, and thus obviate the necessity of moving vessels across the slips to berths Nos. 3 and 4, which are provided with grain conveyors from the old C. P. Ry. Co.'s elevator, the department decided to complete the conveyor equipment for these wharves.

In the month of September, 1913, a contract was entered into with the John S. Metcalf Co. to build wooden galleries partly over the existing freight sheds and partly over city property; the conveyors are connected to both the old and the new C.P.R. Company's elevators, and consist of 1,609 lineal feet of double belt and 687 feet of single belt galleries. The belts along the faces of the berths are provided with trippers and nineteen dock spouts, supported by derricks.

The belts are driven from three towers by seven electric motors of 400 horse-power total capacity.

The work was satisfactorily completed at the beginning of March, 1914.

Owing to the impossibility of procuring electric power at that time, the conveyors could not be used last winter; arrangements will, however, be made for the winter of 1914-15.

The expenditure during the fiscal year was $122,872.80. An amount of about $6,000 remains to be paid for power connections and signal and telephone wiring.

Shed No. 7.

During the fiscal year, repairs to freight shed No. 7 were executed, consisting in renewing the plank floor and a portion of the roadway outside the shed, renewing the electric lighting system, making the hatches water-tight, and other minor repairs.

The amount expended was $5,315.10.

SAND POINT.

Dredging.

Previous to the opening of the winter-port season, the removal of such filling as had occurred at berths 2, 3, 4, 5, and 6 at Sand Point, on the west side of St. John harbour, was undertaken to provide a grade of 30 feet below low water. Departmental dredge *Fielding,* working from the 9th of October to the 1st of November, 1913, removed 25,370 cubic yards, scow measurement, of sediment.

Owing to the fact that the *Fielding* was unable to work close to the docks, it was necessary to have the work completed by dipper dredges. From the 4th to the 11th of November, 1913, the dredges *Beaver, Cynthia* and *St. John,* of the Maritime Dredging and Construction Company, were employed on this work, removing 14,933·1 cubic yards, scow measurement, of class "B" material, and 18·66 cubic yards of class "A" material, at contract rates.

From the 8th to the 10th of January, 1914, similar work was undertaken in berth No. 7 by dredges *Beaver* and *Cynthia.* The quantity removed was 6,283·4 cubic yards, scow measurement, of class "B" material. Work was not completed to grade throughout, owing to the fact that the dredges had to vacate the berth for the use of a steamer.

The total cost of the dredging performed in Sand Point berths, at Beacon Bar contract rates, was $8,471.95.

COURTENAY BAY.

On the 25th March, 1912, a contract was entered into with the Norton Griffiths Co. for the Construction of harbour improvements in Courtenay bay, or east side of St. John harbour. The works consist in building a breakwater 4,570 feet long, of rubble stone deposited on the beach, which is from 6 to 8 feet above low tide, the top of the breakwater being 13 feet above high tide (spring tides rise 27 feet); the construction of two piers on the northern side of the bay; these piers are 800 feet long, 300 feet wide, and are to be built of timber cribwork sunk in 34 feet of water at low tide, on which a concrete superstructure 21 feet high will be built; the excavation of a basin inside the breakwater and a channel leading thereto from the main entrance channel of the harbour, the total quantity of dredging being approximately 11,000,000 cubic yards; the approximate estimated cost of the work will be $7,500,000; the contract is stipulated to be finished in 1917.

In connection with the works, the contractors are bound to build a dry dock, 900 feet long, with an entrance 110 feet wide; the dock is to be constructed and equipped under the Dry Dock Subsidy Act of 1910.

During the year 1912-13, the work was confined to the construction of the stone breakwater.

During the fiscal year 1913-14, the construction of the breakwater was continued with satisfactory progress, and was completed on a total length of 4,000 feet, with the exception of part of the coverstone; the dredging was considerably delayed by stormy weather and through the loss by sinking of one of the dredges, and by insufficient plant. The yardage in dredging amounted to 551,469 cubic yards.

The excavation for the dry dock has progressed in a satisfactory manner. The building of the piers has not yet been commenced. The expenditure during the fiscal year was:—

Breakwater	$481,178 45
Dredging	170,455 08
	$651,633 53

The total of the amounts expended in the harbour of St. John during the fiscal year 1913-14 is $1,360,310.78.

FORT DUFFERIN.

Fort Dufferin is situated on the west side of the entrance of St. John harbour. The breastwork at Fort Dufferin is 962 feet long, from 7 to 14 feet wide on top, and about 9 feet in mean height. The work is intended to protect the headland on which Fort Dufferin is built.

During 1913-14, three thicknesses of old sheathing were removed from the face of the work for 121 lineal feet, and this portion was close-piled; twenty-six knees were replaced by framed braces; 60 lineal feet of old cribwork have been rebuilt. A shed, 13 by 14 feet, has been constructed, and approximately 275 cubic yards of ballast have been placed in the work. A portion of the breastwork, which was undermined by a storm, was repaired and sheathed to retain the ballast, and a groyne, to retain the beach, was repaired.

Work was begun 14th May, 1913, and completed 27th January, 1914.

Expenditure, $4,573.22.

NEGRO POINT.

Negro point is a headland about 60 feet above high-water mark, at the western entrance to St. John harbour, which is formed by the estuary of the river St. John on the northern side of the Bay of Fundy. The extreme range of spring tides in the St. John harbour is 28½ feet; extreme neap tides rise to 20 feet above low water, with a range of 13½ feet. Negro Point breakwater, begun in 1875 (originally built with a cribwork core, but now a rubble mound), 2,200 feet in length, closes a part of the west channel of St. John harbour. Although the stones were large, they were easily dislodged by the sea, and for some years heavy concrete blocks were made in place on top of the mound.

During 1913-14, 5,226 cubic yards of stone were replaced on the seaward side of the work by means of a derrick; one block of concrete, containing 47 cubic yards, was made in place beside the base of the lighthouse, and other repairs were made to the concrete base of the light, in which forty-six barrels of cement were used; approximately 350 cubic yards of concrete were placed among the stones at the end of the large concrete blocks; 454 barrels of cement and 1,000 barrels of sand were purchased and delivered at the work, and a new derrick was constructed.

Work was begun April 9, 1913, and was suspended December 11, 1913.

PARTRIDGE ISLAND.

Partridge Island is the quarantine and lighthouse station at the entrance of St. John harbour. The departmental wharf at Partridge island, consisting of two wings of close-faced cribwork, 220 and 160 feet long respectively, with stone filling between, was built in 1910, for quarantine purposes.

In September, 1913, the covering was repaired on the inclined platform from the east pier to high ground, as well as some covering on the west pier, in order that coal might be hauled from the wharf to the quarantine station. During December, 1913, repairs were made to the low-water landing. The repairs consisted of placing and bracing four upright posts at the corners of the landing, and placing a double tier of cross-ties on top. Some covering was also repaired.

Expenditure, $345.66.

19—iv—p. 144.

n Harbour, N.B.
Bar Wharves
ing East.
mber 1914.

19—iv—p. 144.

WEST ST. JOHN HARBOUR, N.B.
Beacon Bar Wharves
Looking Sth. East.
December 1914.

ST JOHN RIVER
Mill Pond
Filling Completed
FORT DUFFERIN
Breakwater Wharf
Round Reef
Point of Equilibrium
To be dredged to 32 feet at low water
COURTENAY BAY
FILLING
UNDER CONTRACT
WEST CHANNEL
Old Pier Line
New Pier Line
PARTRIDGE ISLAND
RED HEAD
Public Works of Canada
HARBOUR
OF
SAINT JOHN N.B.
1914
December 1914
Scale: 1200 Feet to an inch

Water Pipe.

In order to furnish Partridge Island, the lighthouse and quarantine station at the entrance of the harbour with a water supply, an agreement was made with the Corporation of St. John, whereby it extended the pipe line, in 1904, from St. John street to high-water mark, below Fort Dufferin. By February, 1906, the pipe was laid across the west channel by the department, and water was turned on to the island In 1907-8, before the laying of the pipe on the island was completed, the pipe in the channel was damaged by frost and by a schooner dragging her anchor.

After repeated attempts were made to repair the pipe, it was abandoned, and in 1913-14 tenders were called for a new pipe. On the 11th of August, 1913, a contract was let to the Canadian Fairbanks-Morse Company for the supply and delivery of 3,300 lineal feet of flexible bronze tubing, 4 inches in diameter, inside measurement, with couplings attached. During the fiscal year, the full quantity of pipe and couplings was delivered, but not all tested, owing to the fact that testing is done as the pipe is laid, and the laying of the pipe was delayed by the dredging of the trench.

Preparations for laying the tubing were begun on the 1st of August, 1913, and during September and October, 1,486·9 lineal feet of tubing and couplings were laid in a dredged trench, 6 feet deep, beginning at the island side of the channel.

Expenditure:—

Supply and delivery of pipe by contract	$12,563.56
Day labour work laying pipe	2,468.46
Total, 1913-14	$15,032.02

Dredging.

On the 2nd of September, 1913, the offer of the Maritime Dredging and Construction Company, for the removal of approximately 10,000 cubic yards, scow measurement, class "B" material, at 50 cents per cubic yard, was accepted. The work to be done consisted in providing a trench 3,200 feet long, across the west channel of the harbour, in which to lay a new waterpipe from the mainland to Partridge island.

On the 5th of September, 1913, the dredge *Cynthia* commenced work at the island end, and 1,750 lineal feet of trench, 6 feet deep and approximately 8 feet wide, were excavated by the 31st of October, 1913. On the 7th of November, dredging was suspended by order of the department. The quantity removed was 4,274 5 cubic yards, scow measurement, of sand, mud, and gravel.

The cost of the work was $4,137.25.

Dredging (Quarantine Wharf.)

Dredging was required to provide a berth 60 feet wide, for the quarantine boat at low water, allowing a depth of 8 feet below low water. On the 22nd of November, 1913, the Maritime Dredging and Construction Company's offer to remove 1,150 cubic yards, scow measurement, class "B" material, at 50 cents per cubic yard, was accepted.

The cost of the work was $588.55.

Dredging—(Foul Ground).

On the 30th of May, 1913, a contract was entered into with the Maritime Dredging and Construction Company, Limited, for the removal of 35,000 cubic yards, scow measurement, of clay, gravel, boulders, and loose rock, at $6.90 per cubic yard for class "A" material, and $0.49½ per cubic yards for class "B." The work comprised the

removal of all material overlying the ledge rock at the point of the Foul Ground, in the main entrance channel to St. John harbour. An extension of the contract for the removal of 12,000 cubic yards, additional, was authorized in December, 1913.

During 1913-14, an area of approximately 350,000 square feet was dredged over. From the 12th of August, 1913, to the 31st of March, 1914, the dredge *Cynthia* removed 38,646·7 cubic yards scow measurement, of class "B" material, and 84·78 cubic yards of class "A," which consisted of clay, boulders, stone, and mud.

The cost of the work was as follows:—

38,646·7 cubic yards, scow meas., class "B" at $0.49½..	$19,130 12
84·78 cubic yards, scow meas., class "A" at $6.90...	584 98
Total..	$19,715 10

Dredging—(Intercolonial Railway Wharf, West Berth).

In 1913-14, the Department of Railways and Canals requested this department to have some dredging done on the west side of the International long wharf, in order to improve the berth for the use of winter-port steamers having a draught of 30 feet. After calling for private tenders for this work, the offer of the Beaver Dredging Company, for the removal of 12,000 cubic yards, scow measurement, class "B" material, at 40 cents per cubic yard, was accepted.

A berth, 60 feet wide for 450 feet, and 50 feet wide for 100 feet, was dredged over. At the 30-foot grade, rock was encountered at 250 feet from the outer end of the berth. From this point to the head of the berth, a sloping grade was obtained, a depth of 10 feet below low water being reached at the head of the berth. A bar, 100 feet distant from the end of the wharf, was removed to a depth of 30 feet. The area dredged over was approximately 38,000 square feet.

From the 25th of October to the 27th of November, 1913, the dredge *Beaver* removed 11,938·6 cubic yards, scow measurement, of mud.

The cost of the work was $4,775.44.

Dredging—(Main Channel).

During 1913-14, departmental dredge *Fielding* continued work on the main entrance channel to a depth of 32 feet at low water. The channel is 6,000 feet long, with a minimum width of 600 feet. Soundings taken in October, 1913, showed a minimum depth of 24·5 feet of water in the east side of the channel, and 27 feet of water in the west side, at low water.

The dredging, during 1913-14, consisted in removing a portion of a bar formed of silt and very fine sand, which had accumulated in the channel during the past year. Great difficulty was found in removing this material, owing to the fact that scows to retain the fine sand had to be made practically water tight. Owing to this difficulty, the use of the departmental scows had to be abandoned, and it became necessary for the dredge to dig material into its own hoppers, and carry the material to the dumping ground.

From the 2nd of June, 1913, to the 21st February, 1914, the dredge removed 215,209 yards of mud, sand, and soft mud from an area of 1,250,000 square feet.

Dredging—(Nelson and Wellington slips, and Navy Island Bar).

On the 3rd of September, 1913, a contract was entered into with the Maritime Dredging and Construction Company, Limited, for the removal of 74,500 cubic yards, place measurement, class "B" material, at 34½ cents per cubic yard, from Nelson and Wellington slips, and Navy Island bar, on the west side of St. John harbour. This dredging was undertaken at the request of the Commissioner of Harbour, etc., of the

city. The object of the work was to improve Nelson and Wellington slips for the better accommodation of schooners, and the straightening of the ferry route across the harbour, and increasing harbour accommodation by removing the foot of Navy Island bar, to a depth of 14 feet below low water.

During 1913-14, an area of 66,000 square feet was dredged over in Nelson slip, providing a sloping grade from 5 feet above low water at the entrance to the slip, to 10 feet above low water at the head of the slip. On Navy Island bar, an area of 110,000 square feet was dredged to a depth of 11 feet below low water. The dredging in Wellington slip was abandoned at the request of the city of St. John.

From the 17th of December, 1913, to the 31st of Mareh, 1914, the dredge *Beacon Bar* removed a total quantity of 50,113.6 cubic yards, barge measurement, or 41,289.0 cubic yards, place measurement, from Nelson slip and Navy island bar. Of the total quantity removed (41,280 cubic yards, place measurement), it was found that 1,193 cubic yards, place measurement, were removed below subgrade. The quantity paid for was 40,087 cubic yards, place measurement.

The cost of the work was $13,830.02.

Dredging—(Hilyard's wharf).

On the 9th of April, 1913, an agreement was entered into with the New Brunswick Construction Company, Limited, for the removal of approximately 2,016 cubic yards, place measurement, class "B" material, at the rate of 48 cents per cubic yard. from beside Hilyard's wharf. The dredging was for the purpose of levelling up a berth in front of Hilyard's wharf to a depth of 6 feet below low water, and the removal of a small amount of deposit from beside the blocks, to low water level.

From the 25th of April, 1913, the *New Brunswick No. 1* removed 694.8 cubic yards, seow measurement. A survey showed, however, that 806.2 cubic yards, place measurement, had been removed. Owing to the divergence of these quantities, the contractors were paid for only 508.5 cubic yards, place measurement, being the equivalent of the barge measurement quantity removed above subgrade. The material removed consisted of mud and stones.

The cost of the work was $246.62.

Thorne's Slip.

In 1913-14, the department was asked to have a berth, 45 feet wide and 60 feet long, dredged to 8 feet below low water, for the quarantine steamer, at Thorne's slip. On the 15th of October, 1913, the offer of the Beaver Dredging Company, to remove 1,150 cubic yards, seow measurement, of class "B" material, at 44 cents per cubic yard, was accepted.

On the 18th of October, 1913, dredge *Beaver* removed 936 cubic yards, seow measurement, of mud, which, at 44 cents per cubic yards, cost $411.84. The work was satisfactorily completed.

ST. LOUIS.

The St. Louis or Kouchibouguacis river, Kent county, enters the gulf of St. Lawrence 7 miles north of Richibucto. The river is well settled on both banks, the inhabitants numbering about 2,000.

Large quantities of mussel mud are dredged from the river and seowed to farms and, as shoaling had occurred on the upper 2½ miles of what was formerly the navigable section, preventing the passage of seows and lessening the fishing in the river, dredging has been in progress during the past five seasons, and training walls have been constructed to confine the current to the new cut.

During the fiscal year, 1913-14, this work was continued between the 13th and 31st July and between the 12th August and 9th September.

A small dredge with a ⅓ yard clamshell bucket was hired, and a channel across a shoal, about one-fourth of a mile below the end of last year's work, was dredged for a length of 900 feet, 26 feet wide and 2 feet deep, about 1,800 cubic yards of sand, etc., being removed.

Three training walls, about 6 to 8 feet wide, were built of drift logs, etc., and filled with brush and stone, behind which the dredged material was placed. The walls are 180 feet long and 5½ feet high, 80 by 4 feet, and 325 by 3 feet. About 753 cubic yards of brush and 392 cubic yards of stone were used in the training walls.

The expenditure for the fiscal year 1913-14 was $1,008.27.

ST. LOUIS OR LOWER ST. LOUIS RIVER.

Dredging.

Inside the entrance is a wide lagoon generally shallow except in the winding river channel.

Dredging has been done, in the last two years, to obtain a cut 40 feet wide with 3 feet at low water ordinary spring tides across the flats to give a direct channel for boats from the entrance to the river proper.

In 1912, the cut was dredged for 1,200 feet by contract, and in 1913 it was extended about 1,250 feet by day labour.

Work was in progress between 11th September and 10th October, 1913, a small dredge, the *St. Louis Star,* being hired for $13 per day, including wages of engineer and cost of gasoline and oil, and a total of 3,820 cubic yards barge measurement were removed at a cost of $937.37.

ST. MARYS.

St. Marys, Kent county, is a well-settled farming district on the Buctouche river, 7 miles above Buctouche.

The wharf, 125 feet long and 18 to 37 feet wide, was built in 1884, and is approached from the highway bridge. When the latter was rebuilt and raised, a new approach was required, which was supplied by the construction of two blocks and spans in 1907.

To enable teams to turn on to the wharf from the bridge from either direction, two pile blocks 15 by 12 feet were constructed during the fiscal year 1913-14, with a span between of 15 feet, enlarging the approach to about 44 by 31 feet. About one-half the stringers of the old wharf were renewed, also the covering over an area of about 112 by 36 feet.

During the fiscal year, roadway approaches were built on each side of the highway bridge to form a winter passage for teams, the old passage under the bridge having been blocked by the work on the wharf. The approaches consist of stone embankments surfaced with earth and are 46 feet long by 32 feet wide and 1 to 8 feet high on the western and 40 feet long, 32 feet wide and 1 to 6 feet high on the eastern side.

Work was in progress between the 15th and 24th July, the 28th July and 1st August, the 18th and 29th August, the 2nd and 12th September, and the 11th and 15th November.

The expenditure for the fiscal year 1913-14 was $1,106.97.

ST. STEPHEN.

St. Stephen, 82 miles west of St. John by rail, is situated on the St. Croix river, opposite the town of Calais, in Maine, U.S. Spring tides 23 feet.

A contract was let on the 28th of July, 1913, to the Maritime Dredging and Construction Company, Limited, for the removal of 11,337 cubic yards, place

measurement, class "B" material, at 70 cents per cubic yard. The purpose of the dredging was to provide a berth at the Canadian Pacific Railway Company's wharf having a depth of 20 feet below high water. The removal of an additional quantity of 2,088 cubic yards, place measurement, of class "B" material, was authorized. This dredging was requested by the town of St. Stephen for the improvement of two berths at the public wharf, one at the front and one at the side.

At the request of the Canadian Pacific Railway Company, a portion of the work was abandoned, dredging not approaching the wharf nearer than 50 feet. The berths at the public wharf were satisfactorily completed. From the 24th of October to the 12th of December, 1913, the dredge *Beacon Bar* removed 17,964·3 cubic yards, scow measurement of class "B" material, and 118·54 cubic yards of boulders, class "A." A survey showed that 11,982·74 cubic yards, place measurement, were removed above subgrade, and 2,743 cubic yards were removed below subgrade; or a total quantity of 14,725·7 cubic yards, place measurement. The material removed consisted of mud, clay, rocks and boulders.

The cost of the work was $9,614.03.

SACKVILLE.

Sackville, Westmorland county, is a thriving town of 1,380 inhabitants, is a station on the Intercolonial railway, and the junction with the New Brunswick and Prince Edward Island railway. It lies on the Tantramar river, and near the head of Cumberland bay.

On the 6th April, 1911, a contract was entered into for the construction of a new wharf at Sackville, which was built between the 10th May, 1911, and the 10th September, 1912.

During the fiscal year 1913-14, the roadway to the new wharf, which was begun in 1912, was completed. The outer 600 feet of the road was raised about 9 inches with brush and clay, and the whole road, 960 feet long, was surfaced with two carloads of ashes and 205 tons of gravel. A quantity of ashes, carried off the crest of the road by a winter freshet, was replaced and the ditches were cleaned out and partly widened. A sluice or box culvert 2½ by 3 by 24 feet long was built at a small stream which crosses the road. The road was fenced with 122½ rods of wire fencing 44 inches high of No. 9 wire, and 171 fence posts were used.

Work was in progress between the 2nd August and 3rd September, the 15th and 30th September, and the 7th and 11th and 16th and 17th October.

The expenditure for the fiscal year was $1,041.48.

Repair and Extension of Old Public or Municipal Wharf.

The old public wharf lies on the Tantramar river, about one-third of a mile above the new wharf.

During the fiscal year 1913-14, the upper side was close-piled for a length of 55 feet and the outer face which was in a wrecked condition was partly removed, being stepped down for connection between a new crib and the old work. A foundation for the new crib was excavated outside the face of the old wharf and in front of the dock, between it and the N. B. and P. E. I. Railway wharf, and the crib, which is 115 feet long and 10 to 20 feet wide, was built to a height of 15 feet. Five hundred and forty-five cubic yards of ballast were purchased and placed in the crib, and 1,476 cubic yards of earth, shale rock, etc., were placed in the old dock behind the crib and to level up the old wharf.

Work was in progress between the 24th and 30th June, the 1st and 14th August, and between the 3rd September and 13th October.

The expenditure for the fiscal year 1913-14 was $4,045.25.

SEAL COVE.

Seal cove, Charlotte county, on the island of Grand Manan, is an exposed inlet at the head of which is an important fishing station. Seal cove is situated about 12 miles from North Head, and about 62 miles southwest of St. John, as the crow flies. There are about 150 fishermen, possessing fifty boats from 9 to 18 tons each. The annual value of the catch is estimated at about $150,000. In 1909-10, the department built a breakwater, 448 feet long and from 24 to 37 feet wide, on the western side of the harbour, to give some shelter to the fishing boats.

During September and November, 1913, the road to the western breakwater, 900 feet long and 25 feet wide, was cleared of brush, filled in with rocks, where swampy, and turnpiked.

To further protect the harbour from heavy storms, and make a safe haven for fishing boats, a contract was let on the 25th of February, 1914, for the construction of a breakwater on the eastern side of the harbour, 515 feet long, to be 24 feet wide on top for 203 feet, and 30 feet wide on top for 312 feet, measured on the centre line.

The work is to be of round cribwork, sheathed on the outside, and fendered on the inside. The contractor will not begin work until next fiscal year.

Expenditure, $195.82.

SHAMPERS.

Dredging.

Shampers is situated in Kings county, near the entrance to the Belle Isle.

This dredging was for the purpose of improving the channel and basin at the Government wharf.

The dredge *New Brunswick No. 1,* of the New Brunswick Construction Company, started work on September 2, 1913, and finished on September 5; 1,796 2 cubic yards, place measurement, of class "B" material were removed at the rate of 30 cents per yard. The material consisted of mud.

The total expenditure, including inspection, for the fiscal year ending March 31, 1914, amounted to $550.92.

SHEDIAC.

Shediac, Westmorland county, a town of 1,442 people, lies on the Northumberland strait, 20 miles south of Buctouche and 2 miles southwest of Point du Chêne. It is a centre for a large farming and fishing district, and is also a popular summer resort.

The Shediac public wharf was built between the 19th October, 1910, and the 4th July, 1912.

Small repairs and improvements were made on the wharf at different times between the 26th April and the 13th September, 1913.

One of the outer spans was closed, in addition to two closed in 1912, to give better shelter inside, by placing stringers between the blocks and sheathing them on each side with creosoted timber.

The roadway approach was ditched and levelled. Broken planks of the covering were renewed; ropes and blocks were obtained for the davitts; eight new ladders were placed, and the creosoted sheathing along the eastern side was bolted and repaired.

The expenditure for the fiscal year 1913-14 was $141.64.

SHEDIAC ISLAND.

Shediac island lies on the north eastern side of Shediac harbour. It is about 2 miles long and 1 mile in extreme width.

On the 19th February, 1914, a contract was entered into with Mr. Warren Taylor for the construction of a wharf at the northwest point of the island, about 1½ mile

from the Grandique and 3½ miles from the Shediac wharves on the mainland. The contract price is $6,432.

Work began on the 12th March and, by the close of the fiscal year, the cribs of the pierhead and outer eight blocks were sunk in place and nearly completed, and the cribs for the next two blocks were built two tiers high.

The wharf will be 700 feet long and consist of a shore block 90 feet long by 15 feet wide, fourteen blocks 15 by 20 feet, fifteen spans of 20 feet and a pierhead 30 by 30 feet.

The expenditure for the fiscal year 1913-14, and the total to date, has been $3,213.50.

SHIPPIGAN GULLY.

Shippigan gully, Gloucester county, a passage between Shippigan island and the mainland, much used by fishing and other vessels in passing from Chaleur bay to the Gulf of St. Lawrence, is situated 56 miles east of Bathurst, the shire-town of the county of Gloucester, and 3 miles from Shippegan, the terminus of the Caraquet railway.

Works were begun, 1875, to improve the channel at the gully in which there was a least depth of only 3½ feet at low water. The construction of dams and breakwaters, concentrating the current into one channel, increased the depth to nearly 6½ feet in 1898, and to about 8 feet at low water, or 13·8 feet at high water spring tides in 1903-4.

Between the 9th June and 30th September, 1913, the rebuilding of the western breakwater was in progress in continuation of the work of previous seasons. The work extended over about 65 feet of the breakwater beginning on the north or inner side 523 feet from the inner end. For a length of 34 feet, close-piles were driven outside last year's work beyond which main piles were driven outside the old face; two walings were bolted to these piles, and close piles were driven outside them for a length of 119 feet. Beyond this section, the same work was done on the outside of the breakwater for a length of 110 feet. The interior was partly filled with brush and stone and new cross-ties, stringers, and covering were placed for about 230 feet; 301 close and 70 main piles were driven.

The expenditure for the fiscal year 1913-14 was $2,991.22.

Dredging.

Inside the gully, the channel made two sharp bends at which the fishing boats were delayed and frequently went aground. In 1904 and 1905, the *Geo. MacKenzie* made a cut about 130 feet wide across the flats to do away with the inner bend, but this width was not sufficient to allow the boats to tack through.

On the 23rd August, 1911, a contract was entered into with the W. J. Poupore Co., Ltd., for the dredging required to widen the cut to about 190 feet, and work was begun in 1912 when a length of 225 feet was widened 60 feet.

Between the 19th June and the 12th September, and between the 3rd October and the 25th November, 1913, the *Prince Louis* continued the dredging under this contract and in the total length of 2,000 feet the cut has been widened about 60 to 100 feet to give the full width required in a length of 1,350 feet, and partially widened in the remainder. The depth reached was 8 feet at low water ordinary spring tides.

The material removed, during 1913, amounted to 31,920 cubic yards, place measurement, of which 11,100 cubic yards was towed 6 miles, and the total cost in 1913 at 40 cents per cubic yard, the contract price, including $367.50 for inspection, was $14,705.72.

The quantity removed during 1913, measured in barges, was 32,314 cubic yards.

SHIPPIGAN HARBOUR.

Shippigan, Gloucester county, is a village and settlement on the mainland at the northeast point of New Brunswick, opposite Shippigan island. A public wharf was constructed here in 1906 and 1907, at the terminus of the Caraquet railway.

In June, 1913, the shed at the end of the wharf was moved 100 feet shorewards to give more room for teams, etc.

Between the 28th October and the 29th November and between the 16th December, 1913, and the 24th January, 1914, the construction of a ferry landing and protecting pier was in progress at the east side of the wharf. When the work closed down, about 37 cubic yards of ballast, a section of the cap timbers, and some bolting were required to complete the structure, which consists of a ramp 25 feet long and 22 to 30 feet wide; a landing, level with the top of the wharf, 28 feet long and from zero to 24 feet wide, and a protecting block, 51 feet long, of which the outer 24 feet is 12 feet wide and the inner 27 feet narrows to 1 foot wide next the upper end of the ramp.

The expenditure for the fiscal year 1913-14 was $1,713.83.

SPINNEY'S POINT.

Spinney's point, Charlotte county, is on the west bank of the L'Etang river, about 6 miles from the mouth and 3 miles below the town of St. George. There are about fourteen families in the neighbourhood of Spinney's point, occupied in agriculture, who ship about 300 cords of wood annually. There was an old Provincial Government wharf at this place, 35½ feet long and 30 feet wide, which became dilapidated.

During 1913-14, the old wharf was removed, and a new wharf of open-faced crib-work, 53 feet by 40 feet, with an average depth of 11 feet, was built, ballasted, and covered.

Work was begun August 12, 1913, and completed January 13, 1914.

Expenditure, $1,939.41.

STONEHAVEN.

Stonehaven, Gloucester county, is situated on the south side of the Chaleur bay, 18 miles east of Bathurst.

The breakwater, originally 425 feet long and built by private parties, was acquired by the department in 1878.

During the fiscal year 1913-14, the old wooden covering near the inner end of the approach was removed on a length of 168 feet, and replaced with stone and gravel. In the next 204 feet, the old cross-ties were largely renewed and covered with new 6-inch plank. A new raised tramway, 382 feet long, was built along the outside of the approach of stringers and sleepers on which the rails were laid for conveying grindstones to the berths. Four new mooring posts were placed and one repaired. The remaining covering of the approach was repaired. The covering was removed from the protection block at the northeast corner, the block was refilled with ballast, the covering replaced and a few sticks of sheathing, which had been carried away, were renewed. The flooring of the pier-head for 67 feet was renewed after refilling the interior with ballast, and thirty-five hardwood fenders were placed along the outer face, also six fenders on the end block. About 270 cubic yards of large stone blocks were placed on the slope along the outside of the pier-head.

Work was in progress between the 9th June and 9th August, and between the 1st and 8th September.

The expenditure for the fiscal year 1913-14 was $1,966.69.

Between the 1st September and the 3rd October, 1913, a small landing wharf for fishing boats was constructed at the foot of Chamberlain's road, so called, about one-

half mile west of the Stonehaven breakwater. The wharf consists of an approach about 10 by 50 feet, three to ten tiers high, and a pier-head 20 by 25 feet, thirteen tiers high. About 30 cubic yards of ballast and the covering are still required on the approach, and about 160 lineal feet of cap timbers on the whole wharf.

The expenditure for the fiscal year 1913-14, and the total to date, has been $1,200.03.

TABUSINTAC.

During the fiscal year 1913-14, an appropriation of $500 was available for the enlargement of a small wharf built at the highway bridge across the Tabusintac river, 5 miles above the mouth of the latter, and 32 miles northeast of Chatham. A survey and a plan of the proposed enlargement were made during the year, but the wharf, which is a Provincial Government structure, was not transferred to this department.

THOMAS' CREEK

Thomas' creek, St. John county, is situated about 8 miles from St. John, and is the home of about 25 fishermen. There is no departmental wharf at Thomas' creek, but there are two breakwater piers at Mispec, about 1 mile distant. A gravel bar, which was a protection for fishing boats at Thomas' creek, had been partly washed away by storms, leaving the cove, formerly used, exposed to the waves. The construction of a protection work was requested for the purpose of retaining the remainder of the bar and increasing the protected area.

During 1913-14, 150 lineal feet of cribwork, 11 feet wide and 8 feet high, was built and ballasted, and a second wall, 66 feet long, 18 feet wide, and 11 feet high, was built and filled with ballast. Excavation for the cribwork averaged 3 feet throughout.

Work was begun December 16, 1913, and completed March 19, 1914.

Expenditure, $1,491.85.

TRACADIE.

During the fiscal year 1913-14 a survey was made and contract plans prepared for breakwaters and breastworks to be constructed at the outer end of a proposed new entrance to Tracadie harbour on the gulf of St. Lawrence.

The total expenditure to date has been $6,156.15.

TRYNOR'S COVE.

Trynor's cove, Charlotte county, is on L'Etang river, 5 miles from Pennfield station (38 miles west of St. John) on the New Brunswick Southern railway. The people are engaged in farming and fishing. Approximately, $13,000 worth of boxwood, etc., are exported annually. There is a departmental wharf at Trynor's cove, 85 feet long and 25 feet wide, with a pier-head 35 by 35 feet.

During July, 1913, the berths on the face and each side of the wharf were improved and levelled by removing a considerable quantity of rock and gravel.

Expenditure, $358.20.

UPPER DERBY.

Upper Derby, Northumberland county, is a well-settled farming district on the north side of the Southwest Miramichi river, about 10 miles above Newcastle. For a landing place for the river steamer, and for boats crossing the river, a wharf consisting of a pier-head 50 to 25 feet, and the approach 15 by 35 feet, was built between the 23rd July and the 16th September, 1913. It is constructed of round-timber cribwork, ballasted with stone and sheathed on the upper end with hardwood plank.

A right of way, about 1,000 feet long, was purchased and fenced on the eastern side, and a cutting and fill were made for a roadway down the river bank to the wharf. A retaining wall of cedar logs, about 75 feet long and five tiers high, supports the slope of the embankment.

The expenditure for the fiscal year 1913-14, and total to date, has been $2,246.60, not including the cost of the right of way.

UPPER SALMON RIVER.

Upper Salmon river, otherwise called Alma, Albert county, is situated 5 miles from Rocher bay, and 2 miles from Herring cove. Large quantities of lumber are shipped annually from this place. At Upper Salmon river, the department has built, on three separate occasions, on the west side of the river mouth, three piers, 30 feet in width on top, respectively 180, 240, and 104 feet in length, each being an extension of the other. The department also built a breakwater on the east side of the river, 150 feet long and 20 feet wide.

On the 5th of November, 1913, a contract was let to the Island Dredging and Construction Company for the construction of an extension of round cribwork to the eastern breakwater, 46 feet long and 20 feet wide, with a pier-head or "L," 100 feet long and 24 feet wide on top. Work will not be begun until next fiscal year.

WELCHPOOL.

Welchpool, a fishing village of 600 inhabitants, is situated on Campobello island, forming part of the county of Charlotte, 50 miles southwest of St. John, in a direct line, and 14 miles south of St. Andrews. Spring tides rise 21½ feet; neaps, 18½ feet. A wharf of round cribwork, 279 feet in total length, was built at this place in 1909-10.

During the month of June, 1913, ten fender piles were placed and secured at the two corners of the wharf.

Expenditure, $154.31.

WELSH'S COVE.

Welsh's cove, Charlotte county, is an inlet off Mace's bay, 7½ miles from Lepreau station, the nearest railway point, 2 miles from Dipper Harbour by land, and 25 miles west of St. John. A large amount of fishing is done from this place.

On the 15th of December, 1913, a contract was let to the Maritime Dredging and Construction Company for the construction of a round cribwork breakwater, 300 feet long, and 30 feet wide on top, with an average depth of 13 feet, to provide shelter for the boats for the fishermen.

The work will not be begun until next fiscal year.

WHITEHEAD.

Dredging.

Whitehead is situated on the north bank of the Kennebecasis river just between Chapel Grove and Moss Glen in Kings county.

Dredging was recommenced here on May 9, 1913. The basin and entrance to the wharf were cleaned up to a depth of 9 feet below low water. Work was performed by the dredge *New Brunswick No. 1* of the New Brunswick Construction Co., at 30 cents per cubic yard, scow measurement.

Very difficult dredging was met with here, the material removed consisting of sand, mud, stone, and heavy gravel. During the period worked in the fiscal year 1913-14, the dredge removed 1,795·4 cubic yards, scow measurement, of class "B" material. Work was completed May 13, 1913.

The total expenditure, including inspection, for the fiscal year ending 31st March, 1914, amounted to $697.77.

WHITES COVE.

On the south shore of Grand lake, in Queens county, about 6 miles from the entrance. The dredge *Tanta Wanta* of the St. John River Dredging and Construction Co. commenced work at Whites Cove on the 14th August, and worked until the 16th August, removing 836·2 cubic yards, place measurement, of clay and rocks. The work here was not completed, as 1,107·4 cubic yards, place measurement, remain to be removed. This dredging was for the purpose of deepening the water in front of the low-water wharf to allow the steamer to dock.

WILSON'S BEACH.

Wilson's Beach is a fishing settlement, situated in a small cove on the west side of Campobello island, part of the county of Charlotte. Spring tides rise 24 feet. At Wilson's Beach a breakwater, 373 feet in length, was built between 1874 and 1878, by joint contribution of the Federal and Local Governments. The work, having become dilapidated, was reconstructed by 1906-7, the new part being 230 feet in length. There is a depth of 13 feet at low water at the head.

During September and October, 1913, temporary repairs were made to the covering, in order to make the wharf safe for traffic.

Expenditure, $89.92.

WOODBURY'S COVE.

Woodbury's cove, Charlotte county, is situated at the head of L'Etang harbour, on the eastern side, and 3 miles from St. George, the nearest railway point. The population, about 300 people, are engaged in farming and lumbering. The old Provincial Government wharf at Woodbury's cove is in a very dilapidated condition, and not worth repairing. It is proposed to construct a new pile wharf, 91 feet long and 65·8 feet wide.

During 1913-14, bolts and timber were purchased for the new work. The construction of the wharf will not be begun until next fiscal year.

Expenditure, $1,364.62.

YOUNG'S COVE.

On the south side of Grand lake, in Queens county, about 14 miles from the entrance.

After working at White's cove, the dredge proceeded to Young's cove on the 16th August, where it worked until August 27, removing 1,926·6 cubic yards, place measurement, of clay and rock, class "B" material. This dredging was required to give deeper water in front of the low-water wharf; 1,400 yards, place measurement, should be removed at this place to complete the work.

PROVINCE OF QUEBEC.

AMHERST.

Two cribs of 45 and 50 feet base were added to the breakwater; the first crib of the training-pier south of new channel secured into position, and some minor repairs were made to the landing pier and freight shed.

Expenditure, $6,512.05.

Dredging.

During the fiscal year 1913-14, dredge *No. 4* worked in the chanuel leading into Amherst harbour.

The object of the work was to allow the sinking into proper position of the first crib of a training pier so as to prevent the new channel from shifting.

A good deal of cast-over work had to be done, amounting to some 5,100 cubic yards, so as to get the first crib of the training pier into position. The channel was then partially opened. As there was some very urgent work needed at Grande Entrée, the dredge *No. 4* was removed to Grande Entrée in the first part of August, to resume work at Amherst in the latter part of September. The total amount of material removed at the entrance of Amherst harbour was 22,500 cubic yards of sand and clay.

There was, besides, some 38,631 cubic yards of cast-over done to widen and extend the channel leading from the main deep water harbour into the inside fishing smacks harbour. The total cast-over reached thereby 43,731 cubic yards, and the material removed 65,700, forming a grand total of 114,731 cubic yards.

ANGERS.

Angers, in Labelle county, is situated on the C.P.Ry, North Shore line, 13 miles below Ottawa. Population of district, 1,800.

Eighty lineal feet of the floor system in the approach was torn up and removed (April 15 to 17) in order to save the material, all the piles having been broken under it by the ice shove of 1913, which moved at a higher level, thicker, and stronger than usual.

From October 1 to November 17, the part of the approach above mentioned was rebuilt, necessitating twenty new piles 30 feet long, a few pieces of plank for flooring and bracing. A new cribwork ice-breaker, 20 feet long, 16 feet wide by 17 feet 2 inches high, was built at the same time, half-way between the two already built.

On January 2, work was resumed and was completed January 19. Eighty yards of stone were placed in the ice-breaker; 16 of stone and 21 cubic yards of gravel were used to restore some 87 lineal feet of the stone approach. The ice was cut clear of wharf, March 27-28.

Expenditure to March 31:

Labour	$741 54
Materials	730 22
Total	$1,471 76

ANSE À BEAUFILS.

Anse à Beaufils, in the municipality of Cape Cove, county of Gaspé, is situated on the gulf of St. Lawrence, 6 miles south of Percé.

In the years 1898 to 1901, protection works, on each side of the channel leading to the inner basin, were built, consisting of two training piers, each about 440 feet long.

The breakwater at the entrance of the harbour had to be sheathed on the outside face from bottom up and reballasted, and the inside harbour dredged out according to plan, and the banks protected by a breastwork protection for a total length of 600 feet. This breastwork is constructed so as to afford good landing facilities for freight and fish.

Expenditure, $4,433.91.

ANSE À GILES..

L'Anse à Giles is a post village in the county of l'Islet, on the south shore of the St. Lawrence, about 45 miles below Quebec. Spring tides rise 21 feet; neaps, 13 feet.

The wharf was vested to the Crown in 1904, and underwent some repairs at that time (see report for fiscal year ended June 30, 1906).

During the last fiscal year, the following repairs and improvements were made to the wharf:

The stringers were renewed on a length of 187 feet, forming a total of 561 lineal feet, the width of the wharf at the inner end being 12 feet.

The five piers of the inner end, supporting the platform, were repaired through a height varying from 5 to 11 feet on a total length of 68½ feet by a width of 12 feet. The flooring and cap pieces were renewed on a length of 185 feet by a width of 12 feet, with 3-inch spruce deals, capping pieces of spruce, dimensions, 10 by 12 inches.

Some sheathing was done on both east and west faces of the wharf on a length of about 70 feet each face, with spruce deals 3 inches in thickness.

Owing to a want of appropriation, the balance of repairs were postponed to the next fiscal year.

The work was started on the 8th of July and was completed on 19th of August.

The total expenditure amounted to $1,195.73.

ANSE À L'EAU (TADOUSSAC).

Anse à l'Eau, in the parish of Tadoussac, is about 1 mile from the village, and is the landing wharf of the Richelieu and Ontario Navigation Company.

During the last fiscal year, the flooring of the approach on a length of 600 feet by a width of 17 feet was entirely renewed, the sidewalk and the guard and the flooring of the wharf were also renewed; the freight shed and waiting room were repaired and painted inside and outside, the roofs were repaired and painted, and the old-fashioned device to operate the movable slip has been replaced by two Reading multiple gear chain hoists. The work was carried out by day labour.

The amount expended is $1,746.32.

ANSE-À-L'ISLOT.

Anse à l'Islot is a small harbour, 7 miles east of Newport, protected from northerly and easterly winds by the main coast and from southwest gales by a small island, being thus open to southerly gales. It was decided to build a landing pier running from the main shore towards the outside end of the island in a southwesterly direction, answering both as a landing pier and as a breakwater against southerly gales.

During the month of November last, the outside end of pier was ballasted at a cost of $170.75.

ANSE À SIMON.

Anse à Simon, Chicoutimi county, in the parish of St. Felix d'Otis, which is a new settlement progressing very rapidly on account of the lumber business, is situated on the south side of River Saguenay, some 27 miles from Chicoutimi.

At last session of Parliament, the sum of $5,000 was voted towards the construction of a wharf.

During the last fiscal year, a wharf and approach 226 feet 7 inches long by 20 feet wide and 24 feet high, at the outside end, has been built at a cost of $4,231.85.

In contemplation of the construction of a head block, some timbers amounting to $773 have been purchased.

The work has been carried out by day labour.

Total amount expended, $5,004.85.

ANSE AU GRIFFON.

Anse au Griffon is 17 miles north-west of Gaspé cape.

The mouth of the river having been choked and closed up by a gravel bar thrown in by northeasterly gales, overflowed the flats and parts of the village, causing a good deal of damage to properties and to the fishing industry.

The shore end of the right-hand side training pier had to be re-ballasted for a length of 100 feet, at a cost of $299.70.

ANSE AUX GASCONS.

Anse aux Gascons, Bonaventure county, is situated on the north shore of Chaleur bay, 7 miles east of Port Daniel.

Anse aux Gascons forms a bay which, with the wharf and the breakwater, constitutes one of the best harbours for fishing boats; the wharf affords a good landing and is frequented by Gaspe boats and schooners.

It is one of the best fishing stations of the bay; about one hundred boats are engaged in cod and lobster fishing.

The wharf, westerly from shore, is 290 feet in length by 22 feet in width; thence in a southwesterly direction, at an angle of 136 degrees, 373 feet in length by 30 feet in width and 29 feet in height, with 17 feet of water at the outer end.

The breakwater, which is the continuation of the first part of the wharf, 423 feet from shore, is 105 feet in length by 20 feet in width. The work commenced in 1910-11, was completed this year.

Spring tide rises 7 feet; neap tide, 5 feet.

During the fiscal year 1913-14, 40 feet of the breakwater were built in open-faced cribwork; the whole was completed, sheathed, and planked. Some minor repairs were also made to the wharf.

Amount expended, $1,486.30.

ANSE ST. JEAN.

Anse St. Jean, Chicoutimi county, is situated on the south shore of River Saguenay, some 19 miles from its mouth, it is a stopping place for the Richelieu and Ontario Navigation Co. steamers. Population, 1,500.

During the present fiscal year, the freight shed and waiting-room were raised and painted, the eastern corner of the head block, which had settled has been raised some 2 feet, the sheathing of the west side of the wharf was repaired, the flooring on the whole length and width repaired and the winches operating the movable slip have been replaced by two Reading multiple gear chain hoists.

The work was carried out by day labour.

Amount expended, $1,198.29.

ASHUAPMOUCHOUAN RIVER.

Ashuapmouchouan river is one of the most important tributaries of lake St. John.

The sum of $501.33 was expended on repairs to the dyke built by the department at the head of Ile du Curé.

The work was carried out by day labour.

AYLMER.

Aylmer, village in Wright county, is located on the north shore of Lake Deschênes, about nine miles above Ottawa.

Minor repairs were made to flooring and handrailing of wharf approach .

Expenditure to March 31, $3.76.

Dredging.

The departmental dredge *Deschênes* worked on Lake Deschênes (May 21 to October 11) making cuts aggregating 5,208 lineal feet by 24 feet wide, in the easterly channel to the public wharf, to facilitate landing at wharf as well as for towing logs. The channel is now 100 feet in width by about 2,600 feet in length, to grade elevation 180.

Some 19,702 yards sand and clay (scow measure) were removed to a least depth of 9 feet, and spoiled in deep water some three-quarters of a mile distant. From survey on the ice in 1914, the quantity, place measure, removed in 1909, 1910, 1911, 1912, and 1913 is 61,093 cubic yards, while the scow measure for corresponding years total 72,206 yards, and the expansion factor is, therefore, 18·2 per cent.

BAIE ST. PAUL.

Dredging.

Dredging to admit of proper mooring of steamers was done by the departmental dredge *Ottawa*. The removal of 3,815 yards (scow measurement) of clay, hard-pan, and cemented gravel was effected within eleven days of actual work, although the dredge stayed at Baie St. Paul from June 30 till July 26. An area of approximately 22,000 square feet was dredged to 12 feet below low-water level; the average depth of the cut being 5 feet. Survey (place measurement) 1,800 cubic yards.

BARACHOIS DE MALBAIE.

Barachois De Malbaie is a large parish and municipality situated at the head of Malbaie bay, some 12 miles east of the county town, Percé.

In November, the inside portion of the approach, close to shore, on the sandbar, for a length of 30 feet, was filled with stone ballast at a cost of $179.

BAIE DES ROCHERS.

Baie des Rochers, Saguenay county, is situated on the north shore of River St. Lawrence, some 15 miles above Tadoussac.

During the past fiscal year, in order to facilitate the approach of schooners engaged in the coasting trade, the sum of $349.75 has been expended in removing boulders.

The work was carried out by day labour.

BECANCOUR.

Bécancour, a pirsh and town in Nicolet county, on the Quebec, Montreal and Southern railway, situated near the mouth of Bécancour river, 8 miles from Doucet's Landing on the St. Lawrence river, and 7 miles from Three Rivers. It contains one grist-mill, three saw-mills, one carriage factory, five cheese and butter factories, two hotels, ten stores, one Roman Catholic church, and does a large trade in lumber, cheese, hay, and flour.

On October 24, 1910, the construction was begun of a small landing-pier on the east bank of the east branch of River Bécancour, some 1,200 feet from its confluence with the St. Lawrence river; this wharf was completed on February 28, 1911.

The wharf consists of a close-faced crib head-block 50 feet long by 30 wide, resting partly on two rows of piles 8 feet apart, and partly on the ground. The structure has 8 feet of water along the outside face, and rises 10½ feet above extreme low water. In the spring of 1913, the ice pulled up the piles from 2 to 3 feet, and in order to repair the wharf, authority was given on April 28, 1913, to expend $500 by day labour.

Work was commenced on July 4, and was completed on September 13, 1913, and consisted in driving the piles to their original depth, and sheathing, to the bottom of the river, the front and two side faces of the wharf, and regrading the approach with stone and earth.

In the execution of the above works some 4,567 feet b.m. of lumber were used.

During the fiscal year 1913-14 the expenditure was as follows:—

Labour and superintendence	$278 25
Material: lumber, iron, tools, stone, gravel, etc.	148 19
	$426 44

BELOEIL.

Beloeil village, a post village in Verchères county, on the Richelieu river, 1½ mile from Beloeil station. It contains one Catholic church, one saw-mill, two hotels, nine stores, one branch bank (Eastern Townships), and one powder mill. Population, 300; of parish, 1,805.

Parliament during last session voted a sum of $9,300 for the purchase of a site and the construction of a wharf, to consist of a close-faced crib headblock of 100 feet long by 40 feet wide, and the erection of a freight shed thereon.

Plans and specifications were prepared, tenders called for, and one bid only, amounting to $14,000, was received. As it was considered by the department that this bid was too high in comparison to the estimated cost, orders were issued, on the 24th February last, to expend a sum of $5,000 for material, and proceed to construct by day labour. The necessary material for the construction of the wharf has been purchased and delivered on the site and consists of:—

120 toise of stone at $10	$1,200 00
Hardware (bolts, roof, etc.)	286 00
Lumber	2,576 00
Steel plates	50 11
Sundry details	150 14
Total	$4,262 25

The required site was purchased from Madame Comtois for the sum of $1,400.

Total expenditure, $5,662.25.

BELOEIL STATION.

The wharf at Beloeil station, constructed in 1912, consists of a headblock 72 feet long, 21 feet wide, and 8 feet above low water, resting on forty-three piles, properly driven and evenly cut 1 foot above low-water level, strongly anchored with five anchor bolts, 1½-inch diameter by 30 feet long, tied to 12-inch channels embedded 5 feet in the earth. Between this wharf and the Grand Trunk Railway wharf under the bridge, a gap 86 feet long was closed by a double row of piles, 10 feet distant, with outside walings.

During the month of November, this row of piles was further strengthened by the addition of binders connecting inside with outside piles; the work was done by day labour.

Expenditure, $103.18.

BERGERONNES.

Bergeronnes, Saguenay county, is situated on the river of the same name, 4 miles from the River St. Lawrence, and about 15 miles below Tadoussac. There are post and telegraph offices, five saw-mills, three cheese factories. Population about 1,000.

During the last fiscal year, a freight shed was built on the wharf at a cost of $623.

The work was carried out by day labour.

BERSIMIS.

Bersimis, Saguenay county, is situated on the north shore of St. Lawrence river, 65 miles below Tadoussac, it is a post village, there are branches of the Hudson's Bay Co., and of Revillon & Frere located here.

During last session of Parliament, a sum of $3,500 was voted towards the construction of a wharf at that place, but nothing has been done.

BERTHIER (EN BAS).

The village of Berthier in the county of Montmagny, is on the south shore of the St. Lawrence, 29 miles below Quebec. A large traffic in farm produce is carried on through the coasting steamer *Champion,* which plies daily between Quebec and Berthier.

Spring tides rise 21 feet; neaps, 13 feet. Some repairs were done to the wharf which consisted of the following:—

The sheathing was renewed on the outer end of the head-block and on the east face of the wharf, on a total length of 130 feet, with 4 inch spruce deals.

Eight (8) fenders were replaced. The flooring was repaired and 5,000 feet b.m. of spruce deals, 3 inches in thickness, were used.

The first row of longitudinals were replaced on a length of 25 feet, with 8 inch square spruce 10 feet long, and two ladders were removed.

The shed standing on the outer end of the wharf was painted, also the mooring posts and a few cap pieces.

The works which were started on the 1st July, were completed on the 16th August, and the sum of $1,199.88 was expended.

Dredging.

Owing to sedimental and silt deposits on both sides of the wharf, the depth of water had decreased, and it was impossible for vessels to stay afloat along the wharf at low tides.

At the request of navigators and business men, the department performed some dredging at Berthier during the fiscal year ended 31st March, 1914.

The departmental dredge *Progress* started work on 28th of May and completed same by 22nd of June, to provide a depth of water at low tide of 10 feet, so that vessels and especially the steamer *Champion* would be able to call at the wharf at any stage of the tides and stay there at any time.

Dredging was done over an area of 48,970 square feet, and the mean depth of cut was 6 feet. The quantity of material removed was 16,500 cubic yards, scow measurement, consisting of soft clay and silt. The survey would show a resulting quantity of about 17,000 cubic yards, allowing a factor of 30 per cent.

Going towards the shore, the required depth of 10 feet at low tides was not obtained, as it was dangerous to excavate lower than the base of the wharf, and affect the stability of the structure.

BERTHIERVILLE (EN HAUT).

Berthierville (Berthier en haut), a thriving river port and incorporated town in Berthier county, on the shore of the St. Lawrence, and a station on the C.P.R. It contains two churches (Roman Catholic and English), twenty stores, three hotels, two saw-mills, branches of the Provincial and Hochelaga banks, one waterworks, one convent, one college, one grammar school, one ladies' seminary, telegraph and express offices, also Melcher's gin distillery. Population, 1,364.

An Order in Council was passed on the 8th November, 1910, authorizing the purchase, from Mr. Hermas Roch, for the sum of $3,000, of a wharf property at Berthierville. On the 25th of March, 1912, the department had entered into a contract with Mr. Eugene Patenaude for the construction of a wharf, on the site acquired, for the sum of $14,721.70.

The structure consists of:—

(*a*) A closefaced crib, 180 feet long, 16 feet wide, 10 feet high, sunk in 9 feet at low water level, placed alongside the bank;

(*b*) A superstructure of monolithic concrete wall, 10 feet high by 4 at the base and 2 feet wide at top;

(*c*) Stone filling of the substructure and to 2 feet below the top of the concrete wall, and earth filling between the crib and the bank;

(*d*) A layer of 6 inches of broken stone from the concrete wall to the street;

(*e*) A concrete flooring 6 inches thick, 180 feet by 27 feet.

The work was started on July 12, 1912, and has been progressing favourably until, in September last, it was found necessary to suspend the concrete flooring construction as the filling of the wharf had not sufficiently settled to receive concrete. In order to complete the contract this year, it was decided to build the floor of macadam instead of concrete.

There were extra amounts of $1,100 and $250, allowed the contractor for the construction of an additional crib to join the Government wharf, at the downstream end, with the Richelieu wharf built on C.P.R. property, and the construction of a macadam flooring.

A total sum of $16,071.70 was awarded the contractor. This includes contract price and extras.

BIC.

Bic, on the south shore of the St. Lawrence river, in the county of Rimouski, is an important village and a favourite summer resort. The harbour offers a natural shelter for vessels of a light draught..

Spring tide rises 14 feet; neap tide 8·50 feet.

There are two wharfs at Bic; one called the old wharf, which is located on the south shore of the harbour, and the Pointe à Côté wharf located at the point of the same name.

The work done during the fiscal year, 1913-14, was the establishment of a beacon on the destroyed portion of Pointe à Côté wharf and some minor repairs.

Amount expended, $73.64.

BREWER'S FACTORY.

Brewer's Factory, a village in Labelle county, is located on the Rivière du Lièvre, about 9 miles above Buckingham.

During the spring freshet, the float landing was torn away from its moorings by the ice. Towing it back and securing it cost $5.

BRYANT'S LANDING.

Bryant's wharf, Brome county, is situated on the west side of Lake Memphramagog, 5½ miles by water and 8 miles by road from Magog, the nearest railroad station on the through line of the Canadian Pacific railway. Two steamers, making daily round trips between Magog and Newport, Vt., call there from the 15th of May to the 20th of September. During the time that the boats are running, the wharf is used by the population for a distance of 3 miles in any direction, as a means of transport for passengers and freight of all sorts up and down the lake. Since the boats were enabled to call, by the reconstruction of the wharf by the Government, the population in the vicinity, during the summer, is increased by about 100 people, who spend an average of a month each at this place.

On June 7, 1913, authority was received to expend the sum of $50, and on July 9, 1913, another authority was received to expend $400 in repairing the approach to the wharf and building an extension to the shelter.

Work was commenced on August 5 and completed on September 27, 1913, and consisted in closing in the existing shelter, building an extension 14 by 12 feet, riprapping a part of the north side of the approach, and regrading the approach with gravel.

In the execution of the above works, some 294 feet of lumber, 9,000 shingles, 943 feet of studding, 50 pounds of iron, and 80 loads of gravel were used.

During the fiscal year 1913-14, the expenditure was $450.38.

BUCKINGHAM.

Buckingham is a town in the county of Labelle, on the Rivière du Lièvre. Population, 3,800. It has rail connection with the Canadian Pacific railway, and is the terminus for considerable boat traffic.

Minor repairs and new hinges were placed on the float landing at Buckingham, September 21 to 23.

Expenditure to March 31, $37.03.

CABANO.

The village of Cabano, in the county of Temiscouata, is situated on the west shore of Lake Temiscouata, and is an important station of the Temiscouata railway, about 45 miles south of Rivière-du-Loup.

The firm of Donald Fraser Sons operates extensive saw and shingle-mills at Cabano, and several other smaller firms own mills, which makes lumber business very active at that place. In order to accommodate the numerous boats plying on Lake Temiscouata, the "L" head-block of the wharf was extended during the fiscal year.

This addition is 100 feet in length, 30 feet in width, and a mean height of 16 feet, built of open-faced cribwork, filled with stone ballast.

The space between this head-block and the shore is to be filled with mill refuse, and will give more room to pile lumber.

The work was done by day labour, between the 10th July and 20th August.

The amount expended was $2,994.56.

CACOUNA.

Cacouna, one of the best known and most frequented summer resorts in Canada, is situated on the south shore of the St. Lawrence, in the county of Temiscouata, 120 miles below Quebec.

Spring tides rise 19 feet; neaps, 12 feet.

During the present fiscal year, an addition to the wharf, 75 feet in length, 30 feet in width at base, with a batter of 1 in 12 and a mean height of 21 feet was built.

The crib was close-faced cribwork filled with stone ballast and placed at the outer end of the wharf in the same straight line.

The aim in extending the wharf at Cacouna is to provide sufficient depth of water at mean high tides to allow the Richelieu Company boats to call for the accommodation of tourists and the transportation of luggage and furniture.

The amounts expended was $2,939.39.

Repairs were also made to the old part of the wharf, and the sum of $1,199.29 was expended; all the works were carried on by day labour during the months of August, September, and October.

CANNES DE ROCHES.

Cannes de Roches is a small fishing cove some 5 miles northeast from Percé, and 2 miles from Corner of the Beach. All fishermen from Corner of the Beach and from the falls of Percé seek shelter at Cannes de Roches in stormy weather. The break-

water of 175 feet, built in 1907, was to be lengthened 90 feet on account of the number of boats to be sheltered.

During the fiscal year 1912-13, the crib was built up to 4 feet above low-water level.

During the last fiscal year, the crib of 90 feet was completed to coping.

Expenditure, $647.82.

CAP À LA BALEINE.

Cap à la Baleine, in the parish of Ste. Félicité, in the county of Rimouski, is situated on the south shore of the St. Lawrence river, about 5 miles east of the village of Sainte-Félicité.

There is, at Cap à la Baleine, a small cove formed by the outlet of a small stream, which cove is used as a harbour by fishermen.

During the fiscal year 1913-14, some of the boulders obstructing the entrance of the said cove were blasted and removed.

Amount expended, $99.25.

CAP DE LA MADELEINE.

Cap de la Madeline parish, on the northern bank of the River St. Lawrence, at the northeastern limit of the city of Three Rivers, where a Government wharf is located but, owing to the great development of the locality by the erection of a pulp mill, it has been decided to extend the wharf to deep water.

Two departmental dredges were employed to level the foundation of the proposed wharf, also remove the shoal obstructing the channel leading to the wharf.

Some 4,716 cubic yards of clay material were removed by dredge *Ottawa* from June 16 to 19, 1913, and 9,500 cubic yards of clay were removed by dredge *Progress* in October (6 to 13), 1913.

CAPE COVE.

Cape Cove, Gaspé county, is an important fishing station on the coast of Gaspé, some 9 miles south of Percé, the shire-town. It is a port of call for steamers plying between Montreal and Pictou, and between Dalhousie and Gaspé Basin.

In 1905, the department decided to construct a landing pier at this place, and in August, 1906, a contract was entered into with Mr. John Burns, for the construction of the first portion, 400 feet, for the sum of $13,000; the work was completed in November, 1906.

In the spring of 1912, a contract was entered into with Jos. Romeo Toupin, for the construction of 300 feet to complete pier, for the sum of $24,500.

During the last fiscal year, the work was completed. Three extra works, a slip on the east or outside face, a protection breastwork along shore, also on the east side, and the rebuilding of outside end of old work were performed. An amount of $1,040 for extra sinkage was allowed.

Last final estimate amounts to $25,537.82.

CHAMBORD.

Chambord, Chicoutimi county, is situated on the west side of Lake St. John, 10 miles below Roberval; it is a farming parish. Population, 1,000.

During last fiscal year, the sum of $150.13 was expended in repairing the flooring of the wharf.

The work was carried out by day labour.

CHICOUTIMI BASIN.

Chicoutimi Basin is situated to the west of Chicoutimi town, where there is an hourly ferry boat.

At last session of Parliament the sum of $6,000 was voted towards the construction of a wharf.

During the last fiscal year a wharf having a frontage of 99 feet by an average width of 61½ feet, with a movable slip of 35 feet by 12 feet, a freight shed of 18½ feet by 16½ feet, and a pontoon of 36 feet long by 16 feet wide and 5 feet high has been constructed.

The wharf is of pile construction, well sheathed with 4-inch deals, protected with fenders and walings of 10 by 10 inches.

The work was carried out by day labour at a cost of $5,997.07.

CHICOUTIMI.

Chicoutimi town, in the county of the same name, is situated on the south shore of the River Saguenay, at the head of navigation, 71 miles above Tadoussac, and is the terminus of Q. & L. St. J. railway. The Richelieu and Ontario Navigation Co. maintains a daily service between Chicoutimi and Quebec. Population, 8,000.

In order to protect the wharf and permit dredging in front of it, piles were driven alongside the frontage for a distance of 200 feet; 100 pieces of timber from 45 to 50 feet long have been purchased to complete the piling next season.

The work was carried out by day labour, and the sum of $1,802.38 was expended.

Improvements.

During last fiscal year, the sum of $3,199 was expended towards improvements to the wharf at that place. The principal improvement was the electric instalment, which is composed of four arc lamps of 1,000 candle power, placed on a post 50 feet high; these lamps are to facilitate the unloading of vessels during night; and eleven iron posts with three branches equipped with thirty-three incandescent lamps of 32 candle power; all the wiring is underground; the cost of this plant amounts to $2,203.72. The winches operating the movable slip have been replaced by two Reading multiple gear chain hoists, and the wharf has been raised with gravel and earth from 1 to 2 feet, over an area of 3,000 square feet.

The work was carried out by day labour.

During the last fiscal year, the freight sheds and the waiting-room on the wharf were raised some 18 inches, the foundations which were placed on the remains of an old slab wharf were renewed, the roofs of the sheds repaired, the flooring on the portion of the old wharf, over an area of 5,000 feet, was renewed twice during the season of navigation.

The work was carried out by day labour. Amount expended, $3,598.

Dredging.

In contemplation of the construction of an extension to the present wharf at Chicoutimi, a seat for wharf foundation has been dredged to 25 feet below zero of the gauge.

The amount of the material dredged was 30,060 cubic yards, scow measurements. The material was clay and a few boulders.

The work was performed by the Continental Dredging Co., of Montreal, and started on 25th August and was completed on 28th September.

The price paid was 32½ cents a cubic yard, scow measurement.

CLARKE CITY.

Clarke City, Saguenay county, is situated on the north shore of River St. Lawrence, in the bay of Seven Islands. One of the most important pulp-mills of the Dominion, making 125 tons of pulp per day, is established here.

During last fiscal year, the wharf was raised some 4 feet at the outer end, tapering to nothing at shore end, and widened 5 feet from the head-block to the shore, a distance of 400 feet.

The work was carried out by day labour. Amount expended, $12,437.20.

CONTRECOEUR.

Contrecoeur, an incorporated village and station on the Quebec-Montreal and Southern railway, in Verchères county, on the St. Lawrence river. It contains one Roman Catholic church, five stores, one hotel, one saw-mill, three cheese and butter factories, three shoe factories, telegraph, express, and telephone offices, and seven schools. The R. & O. Nav. Co.'s boats call three times per week. A fine aqueduct was inaugurated here in 1903. Population of parish, 1,760.

The wharf consists of:—

1. A close-faced crib head-block 82 feet long outside face (exclusive of ice-breaker, 14 by 32 feet), 40 feet wide, standing 17 feet high in 6 feet of water at lowest level.

2. A close-faced crib approach 180 feet long, 20 feet wide at top, with ice-breaker all along.

The following repairs were effected during the summer months:—

Repair of northeast corner, and flooring thereon.

Placing walings on the outside face.

Replacing 40 feet of 8- by 8-inch cap along the approach.

Adding sheet angle iron on the two outside corners, and on the corners of the slip.

Constructing a movable shed 30 by 20 feet.

Placing an 8-inch sewer pipe along 100 feet of the approach, in order to carry away the surface drainage which destroyed the roadway.

Minor repairs to the flooring. This work was done by day labour.

Expenditure, $1,345.70.

COTEAU LANDING.

Coteau Landing, the chief town of the county of Soulanges, situated on the St. Lawrence river and on the G. T. railway, 1½ miles from Coteau station, 36 miles from Montreal. It contains one Episcopal church, grist-mill, five stores, four hotels, telegraph and express offices. During summer, it has communication with Montreal by steamer. The Soulanges canal, connecting Lakes St. Francis and St. Louis, starting near the G. T. railway bridge at Coteau and terminating near the junction of the Ottawa and the St. Lawrence, passes in front of the town.

The Coteau Landing wharf consists of:—

1. A close-faced crib head-block 271 feet 8 inches long, outside face, besides 27-foot ice-breaker, 25 feet wide, standing 15 feet 5 inches high in 10 feet of water at low level.

2. A close-faced crib approach 92 by 25 feet.

3. A crib and span approach 790 feet long, from 12 to 24 feet wide, formed of 26 cribs of timber below and concrete above low water, and supporting steel I-beams and pine flooring.

4. A freight shed, 41 by 20 feet, at upstream intersection of head-block and approach.

The rebuilding in concrete of the whole head-block began in October, 1910, and has been completed this year. It comprises an encircling wall of reinforced concrete, 6½ feet high by 3 feet thick at the base, and 1½-foot at the top. The close-faced crib approach has been covered with a concrete floor, as also 300 feet of the approach on concrete piers.

This work was performed by day labour. There remains 480 feet of approach to be cemented in order to have a permanent construction throughout.

Total expenditure, $3,986.58.

CÔTE ST. CATHERINE.

Côte St. Catherine is a landing place on the south shore of the St. Lawrence, in Laprairie county, about 5 miles west of the village of Laprairie. A steamboat ferry plies daily between this place and Verdun, on the opposite side of the river. Population of parish, 5,000.

The wharf was commenced in October, 1899, and completed in June following, at a cost of $3,199.46. It consists of a close-faced crib-block, 82 feet long, 20 feet wide, terminated at the upper end by an ice-breaker, and an approach, 115 feet long, 18 feet wide, also of close-faced cribwork. The outer face of the block stands in 6 feet of water at low level.

Minor repairs were made to this wharf during the summer. Three toise of stone were placed about the approach, and the road was graded from the highway to the approach. A few planks were renewed in the flooring.

This work was done by day labour.

CRANE ISLAND (NORTH SHORE).

Crane island or Isle aux Grues, in the county of Montmagny, is an island of some 800 inhabitants, lying in the St. Lawrence opposite Cape St. Ignace, 35 miles below Quebec.

The community is chiefly engaged in farming; a great number of the inhabitants own schooners or other vessels.

During the last fiscal year, ending March 31, 1914, owing to the advanced state of decay, important repairs were done to the wharf, which consisted of the following:

On a surface of 120 feet in length by 30 feet in width, two rows of the superstructure were renewed, at the outer end.

On a length of 200 by a width of 22 feet, the first row of the face timber was renewed together with the longitudinals and cross-ties.

Stringers were renewed on the whole length of 300 feet, the dimensions were 10 feet by 12 inches.

The flooring was renewed on a total surface of 350 feet by a mean width of 25 feet, with 3-inch spruce deals, thoroughly secured to the stringers.

The stairways and the slip were nearly all renewed, and twelve mooring posts and four ring bolts were placed at convenient places.

Some pieces of the sheathing being worn out, were also replaced. Cap pieces were replaced on about 600 lineal feet, dimension 10 by 12 inches.

The work was done by day labour during the months of August, September, October, and November.

The total expenditure was $2,499.98.

CRANE ISLAND (SOUTH SHORE).

The wharf on the south side of Crane island is used as a harbour by schooners in the spring, as a protection against ice. It is also of utility during summer, as a refuge against east gales and storms. Unfortunately, the depth of water available at low tides is not sufficient to allow vessels of considerable draught to use the wharf, and it will be desirable that it be extended so as to provide a greater depth of water at low tides, increasing thereby its efficiency as a harbour of refuge. There is a heavy lighthouse built on the outer end of the wharf, straining the structure which, on that account, must be kept in very good state of repair.

Works of importance were executed during the fiscal year, which consisted of the following:—

On a surface of 2,520 square feet, at the outer end of the wharf, three rows of the face timbers on the east side and two rows of face timbers on the west side were renewed. On the inner end, on a surface of 360 square feet, five rows of face timbers on the east face and two rows on the west face were renewed, with spruce of 12- by 12-inch dimensions.

The stringers on a length of 90 feet were renewed with spruce 10 by 12 inches in dimension.

The flooring was repaired on a surface of 2,880 square feet. The cap pieces were replaced on a length of 155 lineal feet. The work was done by day labour, was commenced on the 18th of July and was completed by the end of October.

CROSS POINT.

Cross Point, Bonaventure county, is situated on the north shore of the Restigouche river, opposite the town of Campbellton, N.B.

A ferry plies between Cross Point and Campbellton every half hour.

During the present fiscal year, the landing slip was enlarged for 21 feet, making it 40 feet wide. A protection pier of 200 feet in length by 20 feet in width was commenced, built in open-faced cribwork and fully ballasted.

Amount expended, $2,195.12.

D'AUTRAY.

D'Autray, Berthier county, is a small village at the northeastern extremity of the parish of Lanoraie, some 4½ miles north of Lanoraie, and 4½ miles south of Berthierville. It contains one saw-mill, one grist-mill, store and post office.

On September 24, 1913, departmental dredge *No. 103* began the dredging of an 8-foot basin near the mouth of Little River St. Joseph, opposite the E. Valois property. Work was suspended on October 11, when 4,485 cubic yards, scow measurement, of clay and sand had been removed and dumped half a mile away. Total hours of actual dredging, 89½; width of cuts, 25 to 27 feet; face, from 4 to 7½ feet; total distance advanced, 615 feet.

The object is to facilitate the loading of lumber, hay, oats and potatoes from the locality.

Mr. Valois has granted to the Crown and to the public perpetual free right of way from the King's highway to the dredging site.

To complete the original project, some 18,496 cubic yards, scow measurement, are still to be removed.

DESCHAMBAULT.

An amount of $312.31 was expended in painting fencing, posts, etc., repairing same, also renewing flooring of wharf where needed, using for same 6,100 feet, b.m., of 3-inch spruce deals.

DESJARDINS.

Desjardins, in Pontiac county, is located on Allumette island, north shore of Ottawa river, opposite town of Pembroke, Ont.

As it is proposed, during coming season, to make more extensive improvements to the wharf, the minor repairs were postponed to be done at that time. It was thought expedient to purchase a part of the timber which will be required; this was done and material is now piled on the wharf.

Expenditure to March 31, $199.45.

DORION.

Dorion is a post village and summer resort in Vaudreuil county, and a station on the Grand Trunk and Canadian Pacific railways, 24 miles west of Montreal. It contains three stores and two hotels. Population, 300.

During 1913, the department undertook one public and two private dredging improvements at Dorion:

A.—For Ferry.

From October 17 to November 8, on November 15, and from November 19 to November 25, departmental dredge *No. 103* completed the 5-foot channel begun the year preceding opposite the public road passing between the MacKay and Labelle properties. Completed channel is 400 feet long and over 60 feet wide. Some cleaning was also done opposite the other public road leading to the station. Total quantity of material removed, 6,860 cubic yards, scow measurement, of clay and boulders; hours of actual dredging, 159; width of cuts, 18 to 25 feet; face, 3 to 13 feet; distance advanced, 1,027 feet. A portion of the material was cast-over, and the remainder dumped one-quarter mile away.

The object of this dredging was to provide easier landing to motor-boats, and the proposed ferry between Dorion and Ile Perrot on the opposite shore of Vaudreuil bay.

B.—Opposite the Labelle Property.

From November 10 to November 14, departmental dredge *No. 103* was leased to Col. A. E. Labelle, for improvement opposite his property, at a rental price of $8.50 per hour. A 4- to 6-foot basin was made over 80 feet long and from 30 to 55 wide, and called for the removal of 1,290 cubic yards, scow measurement, of clay which was all cast-over. Actual dredging hours, 33; width of cuts, 21 to 24 feet; face, 6 to 8 feet; distance advanced, 170 feet.

Col. Labelle was charged for forty-five hours' work, totalling $382.50, which was duly paid.

C.—Opposite the MacKay Property.

On the 17th, 18th, and a portion of the 19th of November, departmental dredge *No. 103* was leased to Col. F. S. MacKay for some private work, on the same conditions as for Col. Labelle. A 5-foot basin, about 50 feet square, was dredged with the removal of 592 cubic yards, scow measurement, of clay. Hours of actual dredging, 17; width of cuts, 23 feet,; face, 5 to 5½ feet; distance advanced, 105 feet; material partly cast-over, the remainder being scowed and dumped one-quarter mile away.

Col. MacKay was billed for twenty hours' work, totalling $170, which was duly paid.

DOUCET'S LANDING.

Dredging.

Ste. Angèle de Laval is a post village on the south shore of the River St. Lawrence, directly opposite Three Rivers. Connection is made by the branch line of the Grand Trunk railway with the Quebec, Montreal and Southern railway at St. Grégoire, county of Nicolet; with the Intercolonial railway at Aston Junction, and with the Grand Trunk railway through line from Montreal to Quebec at Victoriaville, county of Arthabaska.

The population of Ste-Angéle de Laval village is about 800, and of the county about 26,000, of whom about half are tributary to Three Rivers.

Dredging was performed by dredge *Capital*, which commenced work on September 30 and continued until November 20, 1913, and consisted in the removal of 16,122 cubic yards, place measurement, or 19,580 cubic yards, scow measurement, of hard-pan, clay, sand, and boulders.

Average depth of cut, 3 feet 6 inches, finished depth on the northwest side of the landing, 12 feet, and on the northeast side, 10 feet below extreme low-water level or below zero of gauge at Three Rivers.

The expenditure for the fiscal year was $5,153.82.

DOUGLASTOWN.

Douglastown, situated in Gaspé bay, is a village of fishermen and farmers, standing on the rising ground on the south side of the entrance of the St. John river. Its population is between 1,600 and 1,800.

In the fiscal year 1912-13, 295 feet of the shore end of the landing pier were built to coping. This part consists of twenty-two by twenty-seven cribs with 22 feet spaces between, built on a foundation of fascines mattresses laid on the sand. An additional length of 147 feet was built up to coping during the last fiscal year.

Expenditure, $2,573.66.

EAST TEMPLETON.

East Templeton, a village in Wright county, is located on the north shore of the Ottawa river, 7 miles below Ottawa.

Work to repair damage to wharf by ice-shove in the spring of 1913, was done November 10 to 30, consisting of putting in four new piles along face, five new fenders, four pieces of capping 18 feet long, and two pieces of waling 8 feet long. Some flooring and bracing were replaced.

Expenditure to March 31:—

Labour	$144 50
Materials	164 27
Total	$308 77

ECUREUILS.

Repairs were made during last fiscal year to place the landing pier at Les Ecureuils, County of Portneuf, in order.

At opening of navigation, the small freight shed, located on outer end of wharf, which had been somewhat damaged in ice-shove and canted over, was repaired and replaced; some planking of wharf roadway, broken by ice, was also renewed.

Later on, some 5,826 feet b.m. of 3-inch spruce deals were used in renewing flooring of outer end of head-block, measuring 45·5 feet frontage on river by 30·5 feet in depth, standing on dry beach at low water.

During the whole of the winter of 1913, large and heavy blocks of cut and building stone were shipped via C.N.Q.R. from St. Marc des Carrières to Les Ecureuils wharf, dumped thereon for cartage on the ice to Ste. Croix, on south shore, for the construction of a new church, presbytery, etc., the head-block of wharf had been overloaded, the upper ties and floor stringers strained out of place, causing a depression in flooring, necessitating its removal, propping up, levelling, and bracing of ties and stringers.

Although the deck timbers were not altogether unsound, it was deemed advisable to renew the whole flooring, using the best of the old material in overhauling outer end of the former block or 20-foot roadway which was in bad condition.

ESCUMAINS.

Escumains, Saguenay county, is an important village situated on the north shore of River St. Lawrence, some 26 miles below the mouth of River Saguenay. Population, 1,000.

During last fiscal year, the sum of $594.64 was expended in removing boulders situated in the mouth of the river.

The work was done by day labour.

FABRE.

Fabre, in Pontiac county, is an agricultural centre with a population of 1,000, located on the east shore of Lake Timiskaming, 11 miles south of Ville-Marie.

Work of completing improvements to wharf at Fabre was begun June 2 and continued to September 30.

The work consisted of building warehouse 56 by 24 feet; laying 1,000 feet b.m. of flooring; placing 130 lineal feet of wooden handrailing on north side of approach, and 96 feet on the south side; painting handrailing, wheel-guard, and doors of shed; placing 141 cubic yards of stone riprap in approach, 1,950 yards of stone filling, and some minor repairs to pile-work approach. During the month of March, repairs to slip, etc., necessitated by the ramming of steamboat last fall, were effected, at a cost $109.

Expenditure to March 31:—

Labour	$1,871 38
Materials	532 45
Total	$2,403 85

FASSETT.

Fassett, a village in Labelle county, is located on the north shore of the Ottawa and on the C.P.R. Population, 1,000.

From February 18 to March 14, a cribwork ice-breaker, 20 feet long, 16 feet wide by 18 feet high was built 200 feet west and 100 feet north of face of dock. Some 12,000 feet b.m. of timber and 9 toise of stone entered into this structure. A piece of bracing to lower wharf fender was replaced.

Expenditure to March 31:—

Labour	$205 57
Materials	401 42
Total	$606 99

FATHER POINT.

Father Point, in the county of Rimouski, is situated on the south shore of the St. Lawrence river, 6 miles below the town of Rimouski. It is the place where ocean liners call to take and land their pilots.

There is a powerful compressed air foghorn, an acetylene gas lighthouse, and a Marconi wireless telegraph station.

The work done during the fiscal year 1913-14 was the repairing of the portion of the wharf destroyed by a storm in the fall of 1912; 60 feet in length by 25 feet in height were rebuilt with close-faced timber 12 by 12; upright binders placed inside at every 5 feet, and bolted to the face timber with machine bolts. The stone which had been carried out was renewed, and this portion of the wharf was partly sheathed and fully ballasted.

Amount expended, $3,529.31.

FORT COULONGE.

Fort Coulonge, a village on the Waltham branch of the Canadian Pacific railway in Pontiac county, is located on the north shore of the Ottawa river.

Construction of a ferryboat landing was begun February 17 and completed March 31, except gravel crown on approach roadway and a small quantity of filling in low level approach. This work will be finished during coming summer.

The completed wharf has a cribwork landing-head 36 feet along face by 30 feet wide, with three levels at 2, 6 and 10 feet above L.W.L. The two higher landings are provided with slips. The approach to middle and high level is composed of a crib 10 feet by 24 feet, with a span to landing-head 28 feet long by 24 feet wide. The approach roadway of stone riprap and earth-filling is 16 feet wide by some 300 feet in length.

Expenditure to March 31, $2,543.09.

GARTHBY.

Garthby, Wolfe county, is situated on the east side of Lake Aylmer, at the head of Ward's bay. It is a station on the line of the Quebec Central railway, 47 miles from Sherbrooke. It contains four general stores, butcher shop, blacksmith shop, saw-mills, church, one hotel, and is the distributing centre for the lumber trade, which is quite extensive in the vicinity.

On June 12, 1913, authority was received to expend the sum of $110 in effecting repairs to the wharf.

Work was performed in the beginning of July, and consisted in regrading, with broken stone and coarse gravel, the earth and stone approach, and repairing the low landing stage.

In the execution of the above work, 59 cubic yards of broken stone and gravel, and 72 feet, b.m., of lumber were used.

During the fiscal year 1913-14, the expenditure was $109.27.

GASPÉ BASIN.

The deep water pier to be built in the outside deep water basin at Adam's Bluff, terminus of the Quebec Atlantic and Western railway, was completed.

The last and final estimate amounts to $272,733.99.

GATINEAU RIVER.

The Gatineau river, in Wright county, flows south, emptying into the Ottawa river, 1 mile below Hull.

The erosion of the east bank of this river, below the Canadian Pacific Railway bridge, was doing considerable damage to valuable land. To check this erosion, a riprap protection wall has been under construction for the past two years.

During last season, 380 lineal feet of bank protection work was constructed, September 23 to December 9, consisting of riprap wall 33 feet wide, 1½ feet thick, with a slope of 1 in 3, and some 2,000 cubic yards of earth backfilling, 1,000 yards of stone, including the 480 yards purchased out of last year's appropriation but not used, were put in the work.

Expenditure to March 31:—

Labour	$1,996 49
Materials	1,085 66
Total	$3,082 15

GATINEAU POINT.

Gatineau Point, in Wright county, is located on the north shore of the Ottawa river at the mouth of the Gatineau river. Population, 1,500.

New flooring was placed on two highest levels of wharf, April 28 to 30.

Expenditure to March 31:—

Labour	$15 00
Materials	52 50
Total	$67 50

GEORGEVILLE.

Georgeville, Stanstead county, is an incorporated school municipality on the east side of Lake Memphramagog, 11 miles by road from Magog, the nearest railway station. The permanent population is about 200, increasing to over 300 in summer owing to its popularity as a summer resort. There are five stores, one temperance hotel, two churches, post office, and telephone. It is connected in winter with Magog and Smith's Mills by stage; in summer, two steamers call twice daily running between Newport, Vt., and Magog, Que. Along the lake there are numerous cottages which bring, during summer, an influx of people for whom Georgeville is headquarters. The surrounding country is rich agriculturally and, for a distance of 5 miles in any direction, is tributary to Georgeville. When the steamers are running in summer, all freight and passengers for this territory is handled by them.

At the last session of Parliament, the sum of $500 was voted for the reconstruction in concrete of a part of the wharf. On June 10, 1913, authority was received to expend this sum by day labour.

Work was commenced on May 23, and carried on intermittingly until October 30, 1913, and consisted in repairing the low landing stage which had been damaged by ice, in tearing down a part of the old wharf and building a concrete wall 6 feet high, having 4 feet at the base and 2 feet at the top, and is 63 feet long, and filling in the wharf with stone and gravel.

In the execution of the above work, some four elm piles, 26 feet long, 175 feet b.m. of spruce, 300 bags of cement and 70 cubic yards of gravel were used.

During the fiscal year 1913-14, the expenditure was $515.82.

GLEN ALMOND.

Glen Almond, a village in Labelle county, is located on the east shore of the Rivière du Lièvre.

During the spring freshet, the float landing was torn away from its moorings by the ice. Towing it back to place and securing it cost $15.75.

GODEFROY RIVER.

Godefroy river is a small river in Nicolet county, rising in the seigniory of Roquetaillade and flowing into the St. Lawrence through the parish of St. Gregoire, opposite Three Rivers. On June 11, 1906, a contract was entered into for the construction of a landing pier at the entrance of Godefroy river, the contract price being $4,200; it called for the construction of:—

(*a*) A pile head-block 33 feet wide formed of two portions, one measuring 60 feet 6 inches on the outside face, another measuring 36 feet 6 inches on the outside face, the two forming an angle of 125 degrees.

(*b*) A stone approach 611 feet long, 16 feet wide, with slopes on both sides, side approach forming an angle of 25 degrees with the longer face of head-block; the

whole structure standing 11 feet 3 inches above low-water level. Work was commenced in July, 1906, and satisfactorily completed August 18 following.

(c) In August, 1908, a sum of $650 was expended in building a store-house, 22 by 16 feet, on head-block and in raising stone approach from 1 to 2 feet for a length of 200 feet. During July and August, 1910, the sum of $1,162.30 was expended in the building of a 6-foot-above-zero gauge, pile and crib extension 30 by 10 feet for use at low-water level, stone filling behind up to stone approach from 20 to 42 feet distant.

On April 28, 1913, authority was received to expend the sum of $400 in repairing the wharf which had been damaged by ice.

Work was commenced on June 19, and completed on July 31, 1913, and consisted in tearing down the northeast corner of wharf, driving the piles which had been pulled out by the ice, rebuilding and sheathing, to the bottom of the river, the northeast and southeast faces of the wharf, and replacing a few planks of the flooring.

In the execution of the above works, some 3,848 feet b.m. of lumber were used.

During the fiscal year 1913-14, the expenditure was $405.67.

GRAHAM.

Graham, a post settlement in Vaudreuil county, and a station (Choisy) on the C.P.R., 37 miles northwest of Montreal.

The Graham public wharf, built in 1899-1900, consists of:—

1. A pile head-block, 97 by 32 feet, standing 19 feet 9 inches high in 10 feet of water at low level;

2. A pile approach 48 by 24 feet;

3. A stone approach 230 feet long and 24 feet wide at top, hand railing and slopes of 1 in 1 on both sides;

4. A right of way 333 by 24 feet, leading to King's highway;

5. A freight shed, 25 by 24 feet, at downstream intersection of head-block and pile approach, and another 15 by 15 feet at southwest angle of wharf.

Extensive repairs were effected, during the months of August, September, and October, 1913. Three piles were driven in the northwest corner; four piles were spliced with new heads, in the approach; all floor joists were renewed, both in the approach and head-block, and a new 3-inch flooring was placed over the whole structure.

This work was done by day labour.

Expenditure, $1,615.67.

GRAND ENTRÉE.

The freight shed was repaired, shingled, and painted, and minor repairs were made to the landing pier.

Expenditure, $311.68.

Dredging.

Dredge *No. 4* was removed to Grande Entrée in the first part of August so as to remove part of a shoal which had formed between the Government wharf and the outlet of the harbour. Some 11,875 cubic yards, scow measurement, and 675 castover were removed. The dredge had to lay idle for over two weeks on account of breakage and lack of proper cables. The dredge was removed to Amherst harbour by the middle of September.

GRANDE RIVIÈRE.

Grande Rivière, county of Gaspé, is the name of an important fishing center, some 21 miles southwest of Percé.

During the year 1910-11, steel concrete blocks to complete sheathing of ten thousand superficial feet were made but could not be secured in place, and had to be stored for winter on account of hoisting engine not being delivered in good time.

Diver was employed with helper three weeks to remove obstructions and to fill worst places on outside 300 feet with some four hundred bags of cement.

As mentioned in previous reports, the outside face timbers, eaten by sea worms, were carried away by the sea, together with most of the stone ballast in the outer section between the lower and upper ballast floors. Spruce sheet piling were placed alongside, but they have been carried away on account of the suction of the water that gathered behind in the sections without stone ballast.

In the fall of 1911, the outside face pockets had been emptied of stone ballast, the top ballast floor removed, and the lower pockets well cleaned of stone and dirt. The sides of these pockets were lined with deals and heavy canvas to receive the concrete, three pockets on the outside end were filled with concrete up to average low-water level.

In November, 1911, during the heavy fall gales, the upper structure of the Grande Rivière pier was partly destroyed and, after having a thorough survey and examination made by a reliable diver, it was estimated that the repairs needed, besides the concrete works, would amount to some $10,000. Some temporary repairs at a cost of $684.42 had to be made at once.

During the fiscal year 1912-13, a diver had to be employed to continue the work done in 1911, for a length of 30 feet and to remove the débris and stone ballast along inside face of work so as to sheet the inside with 10 and 12-inch spruce down to rock bottom and replace ballast to keep the top of the pier from being carried away. A length of 100 feet was sheathed as mentioned above.

During the last fiscal year, some minor repairs were done to top of wharf and to freight shed, and three 10 by 10 pockets on the outside face of the wharf were filled with concrete.

Expenditure, $2,957.43.

GRENVILLE.

Grenville is located on the north shore of the Ottawa river about 60 miles below Ottawa, and at the entrance of the Grenville canal. Small boats often have to lie in shelter at this point.

Dredging.

The departmental dredge *Nipissing* worked at Grenville on the Ottawa river October 1 to 9, making a launch basin on the east side of the public wharf. Two cuts were made 137 feet and 92 feet long by 25 feet and 23 feet wide, respectively, with an averaging cutting of 9 feet.

Some 1,911 yards of clay and boulders (scow measure) were removed and spoiled in deep water, 1 mile distant.

GRONDINES.

Work done during last fiscal year at Grondines, Portneuf county, consisted in partial repairs to flooring of wharf, replacing a few damaged long upright fenders, sundry repairs to waiting-room with some painting, also repairing of about 800 feet of roadway approach to wharf, rounding off the middle on a width of 9 feet with a 6-inch layer of coarse gravel.

At close of navigation, all that was liable to be injured by ice, spring freshets, or extra high water, such as movable fenders, mooring posts, freight shed on outer end of wharf for summer and fall accommodation, were removed and placed in safety ashore.

A total of 12,200 feet b.m. of new spruce 3-inch deals and timber were used in repairs; the deals being placed and secured over old planking, to stiffen it, covering an area of 4,000 square feet.

GROSSE ISLE.

Western Wharf (Healthy Division).

Grosse Isle is situated in the River St. Lawrence, some 30 miles below Quebec, and 6 miles from the south shore. It is used by the Government of Canada as a quarantine station for vessels coming up the St. Lawrence.

Two wharfs are available for the accommodation of the boats of the quarantine service, one at the western extremity, or healthy division; the other at the eastern end, or the hospital wharf.

As it is now, the communication between the island and steamers is made by means of a tender; this is all right as long as few people are to be landed, but when a greater number of passengers, some times two or three thousand at a time, are disembarked and embarked, it is a slow process, liable to cause delay and annoyance that would not exist if sufficient wharfage accommodations were provided. Therefore, it would be desirable that the western wharf, at least, be extended and enlarged so that steamers might draw alongside at any time and land in a minimum of time, thousands of emigrants and luggage, whenever required for disinfection.

With this object in view, in April, 1911, a contract was entered into for the construction of an extension to the western wharf. Owing to some unaccountable delays, the foundation crib was set in place only in September, 1912; previous to the laying of the crib, the bottom was dredged to a depth of 26 feet below low water spring tides, and on November 20 the work was closed for winter. In the month of May, 1913, work was resumed on the addition; after having repaired some damages to the crib during the winter. Work was carried on during the summer, and completed by the 20th of November last.

The addition consists in a close-faced, stone-filled cribwork 200 feet long, 60 feet wide top measurement, with a batter of 1 in 12 on the sides and outer end, sheathed with hardwood, 6 inches thick, all over its faces, the total height being 54 feet. The amount of contract was $59,777.60.

As it is now, the wharf presents better facilities for landing, with a depth of water of 26 feet at low tides, but the outer end is not of a sufficient extent to allow steamers to stand by the wharf and transfer passengers and luggage directly on the wharf.

The use of a tender is still to be resorted to until further accommodation is provided.

Eastern Wharf.

The superstructure of the wharf was completely renewed on a length of 100 feet by a width of 20 feet and by a height of 9 feet. The stringers on the surface, mentioned above, were also repaired, and the flooring on a surface of 100 by 20 feet, was renewed with 3 inch spruce deals.

Some minor repairs were also made to the wharf. The work was done by day labour. The work was performed during the months of October and November, and the total expenditure was $1,178.15.

Retaining Wall (Western end).

In the spring and fall, the water of the St. Lawrence at high tides used to flood the flat low grounds of the western end of the island, preventing, for some time, access to the western wharf, to the great annoyance of people concerned.

As the service had to suffer from these periodical floods, the authorities of the quarantine requested that some works be constructed to prevent the occurrence of such floodings, and at the last session of Parliament the sum of $4,000 was appropriated for the required works.

During the months of August and September, a concrete wall 540 feet in length was built across the cove; the mean height of the wall being 8 feet, and its thickness at base and top respectively 24 and 18 inches.

Five ornamental iron posts designed to carry three electric lights each were placed on top of the wall.

A trench was excavated through the low lands, a length of 1,100 feet, and agricultural drain pipes 4 inches in diameter were laid, so that rain water could be carried to the St. Lawrence through a stop valve placed in the concrete wall.

These works were performed by day labour.

The total expenditure amounted to $3,973.60.

GROSSE ROCHE.

Anse à la Grosse Roche in the parish of Sacré-Cœur, Saguenay county, is situated on the north side of Saguenay river, 12 miles from its mouth. Population, 1,500.

During last fiscal year, the sum of $1,507 was expended in the removal of the underwater structure of the head-block extension, which had been carried away by the ice, two years ago; the sum of $1,767.79 was also expended in purchasing materials, consisting of round timbers and stone.

The work was done by day labour.

HARRINGTON HARBOUR.

The village of Harrington is built on a small island so situated that it makes one of the best harbours of the north shore. There are two churches, Anglican and Methodist, also an hospital for seamen. The population is composed of fishermen, about 60 families residing there during the winter.

Harrington harbour is situated 110 miles below Natashquan.

At the last session of Parliament, the sum of $4,000 was voted towards the completion of the wharf at that place. During the last fiscal year, from that amount, $942.52 was expended to purchase materials.

HIGH FALLS.

High Falls, a village in Labelle county, is located on the east shore of the Rivière du Lièvre, 24 miles above Buckingham.

The float landing was torn away from its mooring by the moving ice in the spring. The shed was torn down and the float badly damaged.

Repairs were made May 3 to 13 and 19 to 29, at an expenditure to March 31 of $116.88.

HUDSON.

Hudson, a post village in Vaudreuil county, on the River Ottawa, and on the C.P.R. (short line), 9 miles from Vaudreuil, and 35 miles from Montreal. It is a landing for the Ottawa steamers, and contains one Methodist church, one Roman Catholic church, telegraph, express and telephone offices, one wool factory, one hotel, and two stores. A favourite summer resort for Montrealers. Population, 500.

Dredging.

From January 27 to February 19, 1914, a rock ledge situated some 400 feet upstream of Government wharf, at Hudson, was blasted down to a depth of 8 feet below zero gauge. This was done by placing, upon the rock surface, clusters of dynamite sticks connected with an electric battery and exploded.

Some 75 cubic yards were thus shattered to pieces to be removed by a dredge next season. Total expenditure, $437.09. The object of this blasting was to facilitate access to the departmental wharf.

HULL.

Hull, a city in Wright county, with a population of 18,200, is located on the Ottawa river, opposite Ottawa.

Minor repairs were made to handrailing and shed on wharf. Road metal delivered in the fall of 1912 was spread and levelled on roadway approaches.

Expenditure to March 31, $83.25.

IBERVILLE.

Iberville is an incorporated town in the county and district of the same name on the Richelieu river and on the Central Vermont, Canadian Pacific, and Quebec, Montreal and Southern railways opposite the town of St. Johns. It contains two churches (Episcopal and Roman Catholic), nine stores, one iron foundry, four hotels, two potteries, one grist-mill, and two monumental works, two carriage shops, two bank agencies, and telegraph and express offices. Population over 2,000.

During the summer of 1913, the department undertook three different dredging improvements within the limits of Iberville:—

A.—Opposite the Menard property.

The latter is situated immediately downstream or north of the C.V.R. bridge spanning the Richelieu river.

From October 8 to October 10, departmental dredge *No. 119* or *Richelieu* dredged an 8-foot channel, from 35 to 50 feet wide and 205 feet long, leading from river main channel to Mr. Menard's boat shed. All the material, some 1,105 cubic yards, scow measurement, of sand, clay, and stone was cast-over. Hours of actual dredging, 22; width of cuts, up to 50 feet; face, 5 feet; distance advanced, 205 feet.

The object of this dredging was to facilitate the hauling of motor-boats, etc., into winter quarters.

B.—Opposite the E. Roy property.

The latter is situated about one-quarter mile upstream, or south of the Central Vermont Railway bridge.

On September 23, departmental dredge *No. 119* started the deepening, to 8 feet below zero gauge, of a basin from 200 to 600 feet long and 400 feet wide. Work was suspended temporarily on October 7, resumed on the 10th and suspended for the winter on November 22. Some 14,818 cubic yards of clay, sand, and stone were removed and dumped 1½ miles upstream. Hours of actual dredging, 374; width of cuts, 22 feet; face, from 1 to 5½ feet; distance advanced, 4,920 feet.

The object of this dredging is to provide a near-shore landing place for the loading of barges, etc., of the Terra Cotta Manufactory proposed to be erected in this locality.

C.—Opposite the Thuot and Thuot wharf.

This wharf is situated 650 feet upstream, or south of the Jones highway bridge, or some 1,600 feet downstream of the C.V.R. bridge.

On November 24 and 25, departmental dredge *No. 119* deepened, down to 7 feet below zero gauge, a basin adjoining the Thuot wharf. Some 303 cubic yards, scow

measurement, of clay, sand, and stone were removed and dumped 2½ miles upstream. Hours of actual dredging, 14; width of cuts, 22 feet; face, 1 foot; distance advanced, 275 feet.

The object of this dredging was to provide easier access to wharf at low water level.

ILE AU FOIN.

Ile au Foin, Berthier county, is the most upstream of the group of islands in the River St. Lawrence, at the head of Lake St. Peter, between Sorel and Berthierville. It is 6,500 feet long and 1,200 feet wide.

During the summer of 1913, four different departmental dredges worked at the downstream end of Ile au Foin in the making of a 10-foot channel, over 1,600 feet long and 150 wide, connecting the River St. Lawrence main branch with its north branch leading to Berthierville.

1. Dredge *No. 103*, from May, 12 to August 15, removed 28,373 cubic yards, scow measurement, of sand and clay. Hours of actual dredging, 633½; dumping grounds, one-half mile away; width of cuts, 20 to 30 feet; face, 1 to 6 feet; distance advanced, 6,907 feet.

2. Dredge *No. 106*, from May 19 to May 21, removed 264 cubic yards, scow measurement, of same material. Hours of actual dredging, 14½; dumping grounds, one-quarter mile; width of cuts, 40 feet; face, 2 to 2½ feet; distance advanced, 38 feet.

3. Dredge *No. 107* or *Challenge*, from June 4 to July 24, removed 15,259 cubic yards, scow measurement, of same material. Hours of actual dredging, 281; dumping grounds, one-quarter mile; width of cuts, 25 feet; face, 1½ to 10 feet; distance advanced, 1,923 feet.

4. Dredge *No. 119* or *Richelieu*, from July 16 to September 10, removed 17,401 cubic yards, scow measurement, of sand. Hours of actual dredging, 428; dumping grounds, one-half mile; width of cuts, 22 feet; face, 1 to 8½ feet; distance advanced, 6,400 feet.

The four dredges combined removed 61,297 cubic yards, scow measurement, during a total of 1,357 hours of actual dredging.

Total distance advanced, 15,268 feet.

The main object of this dredging is to reduce the ferry distance between Sorel and Berthierville. On account of a shoal extending 2 miles upstream from the head of Ile au Foin, this ferry line formerly was 10 miles long. The new channel has reduced this to 6 miles.

ILE AUX CASTORS.

Ile aux Castors Berthier county, is one of the many islands in the River St. Lawrence, at the upstream end of Lake St. Peter, between Sorel and Berthierville. It is 3½ miles long, and averages 3,000 feet wide.

Chenal du Castor separates Ile aux Castors from Ile du Pads.

On April 29, 1913, departmental dredge *No. 121* or *St. Louis* resumed the dredging of a 6-foot channel begun the year preceding opposite the Remi Herard property half a mile upstream of the Ile du Pads parish church. Work was complete l May 30.

Some 7,712 cubic yards, scow measurement, of sand were removed and dumped half a mile away. Hours of actual dredging, 242; width of cuts, 30 feet; depth of face, 2 to 6 feet; total distance advanced, 1,799 feet.

The object of dredging was to remove a shoal preventing connection, by boat, between the northern and southern branches of Chenal du Castor. The completed channel is over 100 feet wide and 400 long.

ILE DU PADS.

Ile du Pads, Berthier county, is the largest of the many islands of Lake St. Peter, River St. Lawrence, between Sorel and Berthierville. It is about 9 miles long and 1 mile wide.

The department, during the summer of 1913, completed two different dredging improvements at Ile du Pads:—

A.—Opposite the Joseph Desy property.

The latter is situated about half a mile upstream, or west of the parish church of Ile du Pads.

From September 5 to September 23, departmental dredge *No. 103* removed 5,232 cubic yards, scow measurement, of clay and sand in the making of a 6-foot basin over 240 feet long and 45 wide. Total hours of actual dredging, 108; dumping grounds, half a mile distant (shore cut cast-over); width of cuts, 20 to 27 feet; depth of face, 2 to 9 feet; total distance advanced, 832 feet.

The object of this dredging was to facilitate the loading of hay barges, etc.

Mr. Desy has given to the Crown written agreement allowing the perpetual free use, to the public, of land between public road and basin.

B.—Opposite the Oliver Desy property.

The latter is situated 1½ miles downstream or east of the Ile du Pads parish church.

From August 19 to September 4, departmental dredge *No. 103* removed 5,512 cubic yards, scow measurement, of clay and sand in the making of a 6-foot basin, 240 feet long and 80 feet wide. Total hours of actual dredging, 109; dumping grounds, one-eighth mile away (shore cut made in cast-over): cuts, 18 to 30 feet wide; face, 4½ to 9 feet; total distance advanced, 702 feet.

The object of this dredging was to provide a better landing for hay barges, etc.

Mr. O. Desy has agreed to vest in the Crown perpetual free public rights of way from King's highway to basin.

ISLE VERTE.

The village of Isle Verte, in the county of Temiscouata, is situated on the south shore of the St. Lawrence, 16 miles below Rivière du Loup and 130 miles below Quebec.

Spring tides rise 19 feet; neaps, 12 feet.

During the last fiscal year, the work done on the wharf consists in the construction of an addition, 50 feet square and 22 feet high, placed at the outer end of the wharf, on the eastern side. It is built of close-faced cribwork, filled with stone ballast.

This addition was built in order to provide space to place the shed which was standing on the outer end of the old wharf, where it was a nuisance, and which has been removed onto the new block.

This shed was given a coat of paint and a part of its shingle covering was renewed.

The flooring of the surface previously occupied by the shed was in an advanced stage of decay, and was renewed. Three ladders and two mooring posts were added where required.

Hand dredging was also performed, and 400 cubic yards of materials were removed from the vicinity of the new addition.

The works were done by day labour during the months of July, August, and September, and the total expenditure was $5,895.74.

Michaud's wharf at Ruisseau Blanc.

Ruisseau Blanc, in the county of Temiscouata, flows through the parish of Isle Verte and empties into the St. Lawrence, about 4 miles east of Isle Verte church.

It forms part of the parish of Isle Verte, whose population is 2,500. The chief trade of the place being the sea-moss industry.

In order to help this trade and facilitate the landing of boats, a small landing pier 105 feet in length, 16 feet in width on a mean height of 5 feet, was built along the west side of Ruisseau Blanc, in front of J. Michaud's property.

A road, 6 arpents in length, was also built to reach the wharf.

The channel of the river was deepened and straightened. An agreement was passed and signed by J. Michaud so that the necessary land for site of wharf and road is granted free by the owner.

The amount expended was $800.

KAMOURASKA.

The village of Kamouraska, in the county of the same name, is situated on the south shore of the St. Lawrence river, 90 miles below Quebec; it is a well known place, much frequented as a summer resort.

Its population is about 1,500.

In the month of July, 1913, an expenditure of $200 was authorized to make urgent repairs, and in the month of December a further expenditure of $100 was authorized.

The work done consisted in renewing some dangerous spots on the flooring and in placing ladders where needed. Two mooring posts were also replaced.

The expenditure amounted to $297.40.

LAC AUX ECORCES.

Lac aux Ecorces, in Labelle county, is an expansion of the Kiamika river, which empties into the Rivière du Lièvre.

The improvements to the discharge of Lac aux Ecorces started September 11 at the C.P.R. bridge. A cut 60 feet long, 20 wide by 2 feet deep, and one 20 feet long, 5 wide, and 2 feet deep was made. Some 127 cubic yards of small boulders, gravel and clay were removed.

The improvements, at the discharge of River Kiamika, consisted in removing snags, dead-heads, stumps, and logs. Some 350 logs from 12 to 20 feet long were removed, besides stumps and brush, and 50 cubic yards of clay.

The improvements at Cochon creek consisted in breaking up an old dam and removing snags and stumps over an area 20 feet long and 30 feet wide, and was completed October 31.

Expenditure to March 31:—

Labour	$594 88
Materials	20 83
Total	$615 71

LAC DES ILES.

Wharf at foot.

Lac des Iles, in Labelle county, is located to the west of Rivière du Lièvre into which it drains.

Construction of a wharf at the foot of the lake was begun by day labour June 27 and completed July 1.

The structure is of cribwork, extends out 20 feet drawing 4 feet of water at the landing face, formed by a crib 10 by 20 feet with platform approach 10 feet long and 10 feet wide built to a height of 3 feet above L.W.L.

Expenditure to March 31:—

Labour	$26 08
Materials	42 06
Total	$68 14

LAC DES ILES.

Wharf at head.

Lac des Iles, in Labelle county, is located to the west of Rivière du Lièvre, into which it drains.

Construction at the head of Lac des Iles was begun August 5, and was completed August 30.

The structure is of cribwork, and extends out 201 feet, drawing 4 feet of water at the landing face, formed by nine cribs of 10 by 10, with nine platforms 10 by 12, with landing-head 10 by 20 feet wide, built to a height of 3 feet above L.W.L.

Some 10 cubic yards of boulders were also removed in the narrow channel about one-eighth of a mile above the landing at the foot of the lake, September 2 to 4, at a cost of $15.

Expenditure to March 31:—

Materials	$319 93
Labour	248 85
Total	$568 78

LAC LABELLE.

Lac Labelle, in Labelle county, is located to the east of the Rouge river, into which it drains.

The planking and the floor stringers of the wharf on Lac Labelle, adjacent to Damase Labelle's property, some 4,500 feet b.m. and 360 lineal feet of floor stringers, were renewed. Work was done October 8 to 18 at a cost of $250.

LALANCETTE.

Lalancette, Chicoutimi county, is the best landing place on the River Mistassini for people leaving St. Méthode and Mistassini. Population, 800.

During last fiscal year, a new wharf was constructed; it is of pile work construction, sheathed with 4-inch deals, and protected by fenders 10 inches square. The wharf has a frontage of 40 feet and is 40 feet long, and the approach is 68 feet wide at the start, standing in 8 feet of water, at low water.

The work has been carried out by day labour.

Amount expended $2,004.18.

LANORAIE.

Lanoraie, a post village in Berthier county, on the River St. Lawrence, 5 miles from Lanoraie station on the Canadian Pacific railway, 46 miles from Montreal. It is a port of call of the Berthier and Three Rivers line of the Richelieu and Ontario Navigation Company. It contains a Roman Catholic church, several stores and one cheese factory, a temperance hotel, flour and grist-mills. Population, 600.

The Government wharf consists of:—

(a) A crib head-block 107 feet by 40 feet by 21. 4 feet high, including ice-breaker, sunk in 12 feet at low water level.

(b) A stone-filled crib approach of 246 feet long by 23 feet wide, with ice-breaker, for its full length.

The department entered into a contract, on the 3rd January of this year, for $6,345 with A. Daignault for the construction of an extension 40 feet by 40 feet at the east end of the head-block; also for the reconstruction of the old head-block, from low water level to its former height.

At the end of the present fiscal year, the work was completed, less part of the stone filling.

Expenditure, March 31, 1914, $5,169.

LA PETITE DECHARGE.

La Petite Decharge, Chicoutimi county, in the parish of St. Joseph d'Alma, a very important village of Lake St. John, with a population of about 1,000, mostly engaged in farming, is one of the discharges of Lake St. John into the River Saguenay.

In order to facilitate the flow of water of Lake St. John, and to prevent flooding in spring, the sum of $2,999.10 was expended in the blasting and removal of boulders, which were a great obstruction to the river.

The work was carried out by day labour.

LAPRAIRIE.

Laprairie is a town in Laprairie county, on the south shore of the St. Lawrence, and a station on the G.T.R. It contains two churches (Presbyterian and Roman Catholic), eight stores, four hotels, saw- and carding-mills, one brickyard, one tomato cannery, two agricultural implement factories, two butter factories, post office, branch of Banque d'Hochelaga, and telegraph, telephone, and express offices. It is a beautiful spot near the Lachine rapids, much frequented in summer. Communication with Montreal twice a day by railway and four times a day by steamer. Population, 1,800.

Work on the protection embankment was begun in October, 1910, on the shore road from Laprairie wharf down stream to River St. James, a distance of 3,800 feet, and thence following the shore to a point 4,200 feet east of River St. James approximately 4½ miles from St. Lambert.

This protection dyke consists in the construction of an earth embankment, 8,000 feet long by 24 feet wide at the top, and an average height of 18 feet above low water. Both slopes are to be protected by a hand-laid cemented stone riprap, and the top is to be completed by a 24-inch macadamized roadway.

The department has decided, this year, to give a contract for the balance of the work, estimated at $85,000. Before granting this contract, it was judged advisable to place galvanized corrugated culverts at different places to drain the land south of the embankment.

Four of these culverts were placed in June last, and the road was harrowed by day labour.

In September, three more culverts were built also of corrugated steel, on the property of Alexis Moquin at a total cost of $164.71.

A contract was awarded, in January last, to Duranceau & Poupart, of Laprairie, for the completion of the protection dyke and a roadway thereon, on a unit price basis, amounting approximately to a total sum of $70,051.60. Progress estimates to the value of $3,348 have been granted for the delivery of 600 toises of stone on the site. Work progressing.

Total expenditure, $3,756.71.

LA SALETTE.

La Salette, Labelle county, is located on the east shore of Rivière du Lièvre.

Minor repairs were made to the float landing in July. A new mooring chain was placed.

Expenditure to March 31, $24.65.

L'ISLET.

The village of l'Islet, in the county of the same name, is situated on the south shore of the St. Lawrence, 50 miles below Quebec. It has a population of 2,500, including village and parish.

It is a flourishing agricultural centre.

Its trade is considerable and consists in farm produce and lumber. It contains three brickyards, several factories and saw-mills. The village, being seated on the banks of the St. Lawreuce, is very picturesque and somewhat frequented as a summer resort.

Spring tides rise 21 feet; neaps, 13 feet.

The wharf, substantially built with close faced cribwork, has a length of 1,056 feet and a width of 30 feet, with a head-block 117 by 50 feet wide. The superstructure was in such a state of decay and so worn out that the ice and the waves would have destroyed it.

Owing to the usefulness of the wharf, especially as a harbour of refuge for vessels of moderate draught plying along the coast, it was decided to renew the whole superstructure, and on the 11th of March, 1913, a contract was entered into for this purpose.

The contract price was $1.80 per cubic yard on an approximate quantity of 13,000 cubic yards, viz., $23,400.

The work was started on the 10th of May last, and was stopped on the 15th of October, owing to bad weather, to be continued early next spring. The work is now much advanced and is completed on a length of 827 feet by a width of 31 feet and a mean height of 12 feet. The slip at the west side of the wharf, being of no use, the department issued authority to have it filled up by the contractor at $1.80 a cubic yard.

The dimensions of the slip being 260 feet in length, 10 feet in width, and the greatest height 19 feet, the cubical contents are 1,075 cubic yards.

The work was duly performed by the contractor and, as it is now, the slip is thoroughly filled with cribwork and stone ballast. The total expenditure for the fiscal year amounted to $17,984.50.

Small Wharf.

During the fiscal year ended the 31st March, 1914, the sum of $99.92 was expended towards making some repairs to the small wharf at l'Islet.

The flooring was renewed where damaged; the capping pieces were replaced on a length of 200 feet, and a few pieces of spruce sheathing, carried away by the ice, were replaced.

The amount expended was $99.92.

LONGUEUIL.

Longueuil is a post town in Chambly county, on the south shore of the St. Lawrence river, opposite Montreal. It is also a station on the Quebec, Montreal and Southern railway. It contains two churches (Episcopal and Roman Catholic), eight stores, seven hotels, one saw-mill, one stove factory, one branch bank, and express and telegraph offices. It also communicates with Montreal by ferry and by electric tramways. Population, about 4,500.

During 1913, the department undertook four different dredging improvements at or near Longueuil.

A.—Opposite Boating Club.

The latter is situated on the old Grand Trunk Railway wharf immediately upstream of the Richelieu and Ontario wharf.

From November 4 to Nobember 22, departmental dredge *No. 121* or *St. Louis* started the deepening of a 4- to 6-foot basin, ultimately to be over 600 feet long running inshore, and nearly 150 feet wide. On account of the hard material found and the breaking of anchor posts, only some 495 cubic yards, scow measurement, of boulders and clay could be removed. Hours of actual dredging, 32; width of cut, 33 feet; face, about 3 feet; distance advanced, 87 feet; dumping grounds 4 miles downstream on the Montreal side of the river.

The object of this dredging is to provide mooring facilities to the club members' numerous motor-boats.

B.—Adjoining Government wharf.

From July 4 to November 19, 1913, departmental dredge *No. 110* or *International* worked in the deepening of a 12-foot basin immediately upstream and in front of this wharf. Some 99,267 cubic yards, scow measurement, of hard-pan, sand, and boulders were removed and dumped from 3 to 4½ miles downstream on the Montreal side of the river. Hours of actual dredging, 719½; width of cuts, 20 to 40 feet; face, 1 to 14 feet; total distance advanced, 6,084 feet.

The object of this work is to provide a wide and deep enough basin along outer face of wharf for ferry service connecting Longueuil with Maisonneuve, also to give berthing facilities to barges along upstream side of wharf.

To complete original project, some 35,062 cubic yards, place measurement, of material remain to be removed.

C.—In Main Channel.

From May 12 to June 13, 1913, departmental dredge *No. 115* or *Ottawa* removed, down to 10 feet below zero gauge, a shoal 700 feet extreme length, and 300 feet extreme width, situated some 3,000 feet upstream of the Richelieu and Ontario Co.'s wharves. A quantity of 22,823 cubic yards of sand, gravel, and stone were removed and dumped from 2 to 3½ miles dowstream. Hours of actual dredging, 179; width of cuts, 40 to 50 feet; face, 1½ to 10 feet; total distance advanced, 2,805 feet.

This shoal rendered difficult, especially during high winds, the ferry service between Montreal and Longueuil.

D.—Adjoining the Richelieu & Ontario Co.'s wharf.

From June 10 to July 3, departmental dredge *No. 110* and, from October 18 to November 28, departmental dredge *No. 116* or *Progress* removed some 34,969 cubic yards, scow measurement, of hard-pan and boulders in the making of a 10-foot basin at this wharf.

Dredge *No. 110* removed 16,569 cubic yards. Hours of actual dredging, 115; cuts, 40 feet wide; face, 2 feet; distance advanced, 1,958 feet; dumping ground, 3½ miles downstream.

Dredge *No. 116* removed 18,400 cubic yards. Hours of actual dredging, 193½; cuts, 40 to 80 feet wide; face, 2 to 7 feet; distance advanced, 1,398 feet; dumping grounds, from 3½ to 5 miles downstream on the Montreal side of the river.

To complete, as originally proposed, will require the removal of a further 16,204 cubic yards, place measurement.

The object of this dredging is to provide for a new 8½-foot draught boat which the Richelieu and Ontario Company intends placing on the Montreal-Longueuil ferry line.

LONG RAPIDS.

Long rapids is located on the lower reach of the Rivière du Lièvre, 22 miles above Buckingham. A large traffic in freight and passengers is carried on by a Navigation Company, on this portion of the river. The steamboat line is the only shipping route, for all produce and supplies, at the disposal of this large farming community.

Dredging.

The departmental dredge *No. 102* worked August 8 to October 11, improving channel to facilitate navigation. Some 1,637 feet long by 25 feet wide of channel was dredged to a grade depth of 8 feet.

A total of 6,965 yards of boulders, rock and hardpan (scow measure) were removed and spoiled in deep water about one-quarter mile distant.

During the period that dredging was carried on in Long rapids, a small force of men were employed drilling and blasting rock. Expenditure, $647.73.

MAGOG.

Magog, Stanstead county is situated at the north end of Lake Memphremagog, at the mouth of Magog river and on the main line of the Canadian Pacific railway, from Montreal to St. John, N.B. It is an incorporated town having a population of about 4,000, which is steadily increasing. The main industry is the Dominion Textile Company, manufacturing cottons, which employed over 2,000 hands in 1911, and this plant has been greatly enlarged since. Other industries are two saw-mills, one sash and door factory, and one grist-mill, employing about 100 hands. The town possesses its own water system, hydro-electric light plant, and volunteer fire brigade. The assessed valuation of the town is about $1,500,000. It is a custom port of entry, the collections being about $12,000. There are three hotels, several stores, weekly newspaper, churches, bank, etc.

The trade over the wharf is extensive. Two steamers making daily round trips between Magog and Newport, Vt., carrying passengers and freight. There are about 500 motor-boats on the lake, all of which call at Magog more or less frequently. The permanent residents of the townships of Stanstead, Magog, Bolton, and Putton, make use of the steamers and launches for passenger traffic, and practically all the freight handled in and out of these townships comes to the wharf, from the Government wharfs at Bryant's, Georgeville, Knowlton Landing, Perkin's Landing, and several private wharves.

On June 7, 1913, authority was received to expend the sum of $185, and on September 3, authority was also received to expend $850 in repairing the pile head-block, by day labour.

Work was commenced on July 12, and carried on intermittingly until October 18, 1913, and consisted in renewing the greater part of the floor-stringers, about half of the planking and a part of the capping, and rebuilding the low landing stage.

In the execution of the above works, some 8,824 feet, b.m., of lumber, 10 elm piles, 24 feet long, were used.

During the fiscal year 1913-14, the expenditure was $920.34.

MALBAIE.

Dredging.

To remove a sandbank and provide mooring berth for steamers, the northeast side of the wharf and the south side of the head-block were dredged on an area of

approximately 112,000 square feet, and to a depth of 15 feet at low water. The removal of 43,000 yards (scow measurement) of sand and clay was effected between July 27 and October 9—forty-seven working days. Survey (place measurement), 21,458 cubic yards.

MASSON.

Masson, a village in Labelle county, with a population of 1,000, is located on the Ottawa river 18 miles below Ottawa, and on the C. P. R. North Shore line.

On August 25 and 26, about half of the high-level landing of wharf was replanked.

Expenditure to March 31, $42.

MATANE.

Matane, in the county of Rimouski, is situated on the north shore of the St-Lawrence, at the mouth of the River Matane, some 60 miles east of Rimouski.

There is a very important saw-mill, Price Bros. & Co. Ltd,. with a capacity to cut about 15,000,000 feet of lumber. It is also the terminus of the Gulf Terminal railway connecting with the Intercolonial railway at Ste-Flavie station.

The outlet of River Matane forms a bay which constitutes a good harbour. The department owns a landing pier on the west side of the river, and running parallel to it and a breakwater on the east side, also running parallel to the river.

Spring tide rises 12 feet; neap tide, 7 feet.

During the fiscal year 1913-14, the work consisted of the completion of the repairs commenced in 1912-13, and of the closing of the spaces and enlarging the outside of the landing pier. Four spaces, 25 feet in length by 15 feet in width, and averaging 12 feet in height, were closed in cribwork. The outside portion of the wharf, 155 feet in length by 9 and 15 feet in width, and an average height of 17 feet was built in cribwork, sheathed and planked, and the whole fully ballasted. The approach was enlarged from 15 to 30 feet.

Amount expended, $3,999.93.

MÉCHINS.

Méchins, divided in two villages called Petits and Grands Méchins, is situated on the south shore of the St. Lawrence river, 35 miles below Matane, in the county of Rimouski.

The population is composed of fishermen and men engaged in the lumber business.

About 2 miles west of Grands Méchins, there is a cove which constitutes a good harbour for fishing boats.

During the fiscal year 1913-14, some boulders obstructing the entrance of this cove were blasted and removed.

Amount expended, $100.03.

MÉGANTIC.

Mégantic, Compton county, is a town of 4,000 people situated at the north end of lake Megantic, where it empties into the Chaudière river. It is on the main line of the Canadian Pacific railway, from Montreal to St. John, N.B., 70 miles from Sherbrooke, and it is the end of the Quebec-Megantic line of the Quebec Central railway.

There are four hotels, two churches, two express offices, two telephone and two telegraph lines, good stores, branch banks, etc. There are three saw-mills, cutting 14,000,000 feet annually and employing 110 hands in the mills, and over 1,000 men make their living in the lumbering district of the townships of Ditchfield, Spalding, Woburn, Marston, Ditton, Hampden, and Winslow, which ship to this place. There

is also a sash and door factory employing eight hands, a pulp-mill employing twelve hands, and a furniture factory employing sixty hands. There are about 100 men employed on the railways, who have their homes here.

The people living around the lake, and the lumber companies, use the lake during the navigation season to get supplies in and out. For this purpose, the steamer *Jubilee* makes two daily round trips, and another steamer attends to the lumber business. Many motor-boats, carrying passengers and freight, ply on the lake.

At the last session of Parliament, the sum of $5,000 was voted for the reconstruction of the head-block and a part of the approach to the wharf. On June 10, 1913, authority was received to expend the sum of $5,000 by day labour.

Work was commenced on August 1, and carried on until November 29, 1913, and consisted in tearing down, to the level of the extreme low water, the old crib of the head-block and 100 feet long on the south side of the approach and 40 feet long on the north side, and building a concrete wall having 2 feet at the top with an 8 by 8-inch coping, and filling in with stone and gravel.

In the execution of the above works, 15,522 feet of lumber, 3,942 pounds of steel, and 1,636 bags of cement were used.

During the fiscal year 1913-14, the expenditure was $4,396.79.

MILLE VACHES.

Mille Vaches, Saguenay county, on the north shore of River St. Lawrence, is situated some 41 miles from the mouth of River Saguenay; it is a farming and lumbering place. Population, about 800.

During last fiscal year, the wharf was extended 100 feet in length by a width of 20 feet, spanned over with stringers, spaced between piers 25 feet.

The work has been carried out by day labour. Amount expended, $1,998.56.

MISTASSINI.

Mistassini, Chicoutimi county, on the river of the same name, is an important settlement where the Trappists have their monastery. Population about 800, engaged in farming and lumbering industries.

During last fiscal year, the wharf, started in 1912, has been completed.

The work has been carried out by day labour. Amount expended, $446.36.

MONTEBELLO.

Montebello is located some 44 miles below Ottawa, a station on the C.P.R., and is a lumbering and farming centre.

Dredging.

The departmental dredge *Nipissing* worked on the Ottawa river, for part of a day, October 11, cleaning space at the foot of the jack ladder at the Owens mill. The work was of a private nature and paid for by the Owens Lumber Co.

Some 156 yards of siltings and sunken saw-logs (scow measure) were removed.

MONT LOUIS.

Mont Louis, a village of considerable importance, and the first municipality below Ste. Anne des Monts, is 100 miles below Matane, the nearest railway station.

The harbour of Mont Louis, the largest and best situated on the St. Lawrence, Gaspé coast, offers good water and protection against all except northerly winds.

During the last fiscal year, some minor repairs were done to wharf, and the roadway along the beach was extended 150 feet.

Expenditure, $1,130.24

MONTMAGNY.

(Outer Wharf.)

Montmagny, in the county of the same name, is on the south shore of the St. Lawrence river, 37 miles below Quebec. It is a thriving town of some 4,500 inhabitants.

Important shipments of lumber are made by the Price Bros. Co., and other firms, to European markets. Besides a pulp-mill, there are two foundries and iron works.

The town is built on both sides of Rivière du Sud, which empties into the St. Lawrence with a perpendicular fall of 20 feet. Below the fall, the river expands and forms what is called the Basin, affording shelter for vessels of moderate draught. At the northwest extremity of the basin stands one of the Government's wharves; it is chiefly used for service of small boats of Grosse Isle quarantine and other opposite islands.

Owing to the scouring of the bottom by the current of the river during spring freshets, the outer end of the wharf settled through a height of over 3 feet.

In order to stop the scouring and prevent further settlement, piles, 35 feet long, have been sunk along the outer and south faces of the wharf on a total length of 60 feet, the piles being 9 by 10 inches in dimensions, sunk 10 feet into the clay and screw bolted to the face timbers. The superstructure was removed on a length of about 150 feet, on a height of 13 feet at the outer end, and renewed with new materials. The stairways and slip were also repaired. Four mooring posts and two ladders were replaced. To accommodate the handling of freight, a hoisting crane of 4 tons capacity was placed upon the outer end of the wharf.

These works were commenced in July and completed in October, 1913, and the expenditure for the fiscal year was $4,799.86.

In order to provide more floor space to accommodate the traffic, it was found expedient to extend the head of the wharf, and on the 25th of September, 1913, a contract was entered into with J. R. Boulanger for the construction of an addition 50 by 50, by a height of 30 feet. At the close of the fiscal year, the work was not yet commenced.

(Protection Wall, east side of basin.)

It was found expedient to lengthen the retaining wall, which was built in 1912-13, along the bank on the eastern side of the basin.

This work was built to stop the disintegration of the bank of the basin, which was composed of clay of some 16 feet in height, forming shoals in the basin which interfere with navigation.

The addition, built during the fiscal year 1913-14, is 740 feet in length, 12 feet in width at the base and 8 feet at the top, with a mean height of 8 feet.

It is built of light open-faced cribwork, filled with stone and earth.

The work was done by day labour during the months of July and August. The expenditure during the fiscal year amounted to $4,499.69.

NEW RICHMOND.

New Richmond, in Bonaventure county, is situated on the north shore of Chaleur bay, 60 miles east of Matapedia, between the two rivers Cascapedia.

New Richmond is an important settlement with two saw-mills; farming is also very progressive in this municipality.

A wharf, 1,050 feet in length by 24 and 30 feet in width and 13 feet in height, was commenced in 1910 and completed in 1912.

Spring tide rises 9 feet; neap tide, 5 feet.

During the fiscal year 1913-14, stringers were replaced, the flooring renewed and a freight shed was built.

Amount expended, $1,455.48.

NICOLET.

Nicolet, Nicolet county, is a thriving town of the south shore of the River St. Lawrence at the foot of Lake St. Peter. It is on the line of the Quebec, Montreal and Southern railway, and a branch line of the Intercolonial, having good train service in both directions. The population of the town is about 4,000, and of the county 26,000. A ferry makes daily return trips to Three Rivers, distant about 10 miles by water. A steamer running between Montreal and St. Jean Deschaillons calls twice weekly for freight and passengers, and numerous schooners and barges call for gravel and stone.

Nicolet jetty (new) consists of a rubble mound jetty, being 8 feet wide at the top with sides sloping at 45 degrees, the top of which is 3 feet above extreme low-water level, and its proposed length is 2,535 feet.

At the last session of Parliament, the sum of $9,100 was voted for the construction of a new jetty on the east side of Nicolet river, near the St. Lawrence river; on October 6, 1913, authority was received to expend the sum of $5,000 out of the $9,100, by day labour.

Work was commenced on October 7, and carried on until November 28, 1913, and consisted in building 1,275 feet of jetty of the above-mentioned dimensions.

In the execution of the above work, 327½ toises of stone were used.

During the fiscal year 1913-14, the expenditure was $5,000.

Wharf.

Nicolet wharf consists of a close-faced stone-filled crib 30 feet wide by 83 feet 3 inches long, with an ice breaker 1½ in 1 on the upper end of the wharf.

At the last session of Parliament, the sum of $1,500 was voted to complete the construction of the wharf; on June 10, 1913, authority was received to expend the sum by day labour.

Work was commenced on June 14, and completed on July 31, 1913, and consisted in partly filling the crib with stone, laying on the flooring, and protecting the outer corners with steel plates.

In the execution of the above works, 94 toises of stone, three steel plates 6 by 5 feet by 3/16 inches were used.

During the fiscal year, 1913-14, the expenditure was $1,494.87.

NORTH GUIGUES.

North Guigues, in Pontiac county, is located on the Quinze river, which empties into Lake Timiskaming.

During June, the plant was prepared at the Haileybury shipyard, for construction of the wharf at North Guigues. Work on the wharf started the end of June, and continued till August 16.

The completed wharf, which is of pile-work, extends out 174 feet, and consists of a stone approach 30 feet long by 24 feet wide, a pile-work approach 48 feet long by 24 wide, and landing-head 90 feet by 48, built to a height of 16 feet of M.L.W.L. and 5 feet above R.W.S. A warehouse 48 by 24 and 12 feet high was built on wharf.

Expenditure to March 31:—

Labour	$2,150 44
Materials	1,850 36
Total	$4,000 80

NORTH TÉMISKAMING.

North Timiskaming, the centre of a prosperous farming district in Pontiac county, is located about 2½ miles from the mouth of the Quinze river at the head of Lake Timiskaming. Population, 600.

Parliament at its last session, voted an amount of $4,000 towards a public wharf to replace the old wharf of the Timiskaming Navigation Company at this place. During the year, it was found inadvisable to further consider the purchase of this wharf and site. A survey was made in February for a wharf on another site, which is now being considered by the department.

NORWAY BAY.

Norway Bay, a small village and summer resort in Pontiac county, is located on the north shore of Chats lake, Ottawa river, opposite Sand Point, Ont.

On March 7, work was put under way to construct two triangular faces on the centre ice-breaker east of wharf, and was completed March 31.

Two triangular faces of pile-work measuring 20 feet on a side were added, one at each end of ice-breaker, to protect original pilework from lateral ice shoves. Some minor repairs were made to flooring of approach and to bracing, and improved fastenings were placed for launch landing.

Expenditure to March 31:—

Labour	$347 52
Materials	231 59
Total	579 11

PAPINEAUVILLE.

Papineauville, the shire-town of Labelle county, with a population of 1,000, is located on the north shore of the Ottawa river, 37 miles below Ottawa, and is a station on the Canadian Pacific railway.

Minor repairs were made to wharf approach in July, 1913, at a cost of $6.

A strip of land 16 feet wide by 216 feet long, and running to a point for a distance of 67 feet, comprising an area of 0:09 acre, adjacent to the wharf, was acquired by the Crown for roadway improvements, at an expenditure of $138.20.

The corporation of Papineauville built the road in March for a bulk sum of $450, plus $25 to cover extra cost of removing ice and snow.

Some 95 yards of rock were removed on the width of 16 feet for a distance of, say, 80 lineal feet for sub-grade, sloping about 7 per cent toward the river. The blasted rock was used as filling where required on this strip, and as road metal. Stumps, roots, etc., on this new right of way were also removed.

Expenditure to March 31, $619.20.

Dredging.

The departmental dredge *Nipissing* worked on the Ottawa river (June 25 to July 25, October 13, and November 5) making cuts aggregating 2,902 lineal feet to a width of 23 feet. Three cuts were made at the Ottawa river end of the channel to facilitate navigation into the bay, and seven cuts to enable boats to make the turn more easily, just inside of the bay. Two short cuts were also made at the side of entrance channel, to facilitate landing of launches.

Some 11,973 yards of clay, sawdust, and silt (scow measure) were removed to a least depth of 9 feet, and spoiled in deep water 1 mile distant.

PEEL HEAD BAY.

Peel Head bay, in Missisquoi county, is at the head of Missisquoi bay, an arm of Lake Champlain, 3 miles from St. Sebastien, in Iberville county, and 9 miles from Stanbridge on the Canadian Pacific railway.

The wharf, built in 1905, consists of:—

1. A head-block of concrete 96 feet long by 32 feet wide, and 15 feet high, sunk in 5 feet at low-water level.

2. A stone approach, 18 feet wide at the top and 125 feet long from the head-block, and 25 feet wide for a length of 295 feet to the public road.

3. A large shed 90 by 45 feet alongside of the road.

.The head-block is in good condition.

In the spring of 1911, a portion of the approach near the head-block was torn out by moving ice, during strong south winds.

During the summer of 1912, the following repairs were made:—

Stone hand-laid riprap was placed on both north and south inclines to a length of 200 feet, and a coat of concrete, 1 foot thick, laid on the inclined surface exposed to the south.

Owing to the continuous high water of the season, it was impossible to complete the cementing of the riprap. A revote of $500 was voted, and the work completed during the summer of 1913.

Total expenditure, $521.20.

PERCÉ.

Percé, county of Gaspé, is situated on the gulf of St. Lawrence, 36 miles from Gaspé basin.

The roadway leading to wharf was fully drained, built up and covered with gravel; the warehouse and waiting-rooms were repaired and painted, and minor repairs done to wharf.

Expenditure, $1,315.94.

PERIBONKA AND MISTASSINI DYKES.

Peribonka and Mistassini rivers are two tributaries of Lake St. John surrounded by very important parishes.

To permit navigation to boats coming from Roberval, the department has built dykes in the said rivers.

During last fiscal year, the sum of $2,017.81 was expended in repairs to training dykes in rivers Peribonka and Mistassini.

The work has been carried out by day labour.

PERKIN'S LANDING.

Perkin's Landing, Brome county, is situated on the west side of Lake Memphramagog, 15 miles south of Magog and 6 miles from Mansonville, the nearest railroad station.

The wharf accommodates the population of the township of Putton, about 800 people, and during the summer season is used by a considerable colony of summer cottagers. Vale Perkin, the nearest village, and from which it gets its name, is about half-mile from the wharf. The village contains one store, post office, creamery, schoolhouse, and has connections by telephone. Freight for this territory as far as Mansonville is brought in by boats, when these are running, and consists of food and lumber. About forty cars of wood and a quantity of lumber and logs are shipped out over the dock to Magog.

On June 9, 1913, authority was received to expend the sum of $25 by day labour in grading the approach to the wharf and repairing the landing stage.

Work was commenced on June 23, 1913, and completed on the 28th, and consisted in grading, with gravel, the approach which had been washed away by the high water, and repairing the low-level landing stage, which was damaged by the ice.

In the execution of the above works, 24 cubic yards of gravel, 100 feet of lumber and two pounds of nails were used.

During the fiscal year 1913-14, the expenditure was $25.

PETIT MÉTIS.

Petit Métis, in the county of Rimouski, is situated on the south shore of the St. Lawrence river, about 30 miles east of Rimouski.

The point of Petit Métis forms a bay which constitutes a good harbour for small vessels; this bay is accessible only at high tide.

Petit Métis is an important summer resort, with four hotels, and there is a lighthouse at the point.

During the fiscal year 1913-14, some boulders, being an obstruction to navigation in the bay, were blasted and removed.

Amount expended, $198.25.

PETIT SAGUENAY.

Petit Saguenay, Saguenay county, is situated on the south shore of River Saguenay, some 50 miles below Chicoutimi; its population is about 800.

During last fiscal year, the sum of $227 was expended in the construction of an approach to the head-block previously built; it is a common round timber structure, 50 feet in length by 26 feet in width and 12 feet in height.

The work was carried out by day labour.

PICHÉ POINT.

Piché Point, in Pontiac county, on the east shore of Lake Timiskaming, opposite Haileybury, is the landing for Guigues township, the centre of a prosperous farming district with a population of 4,000.

Work of preparing plant to complete improvements to wharf at Piché Point was done intermittently in May and July at the Haileybury shipyard. On the 31st of July the plant was moved to Piché Point and work was started August 1, and discontinued October 21.

The work consisted of making ice-boom, making and placing fenders on wharf, completing stone approach (some 1,500 cubic yards), minor repairs to ice-breaker, laying wheel-guard, building warehouse 40 by 72 feet by 14 feet high, placing railing on south side of approach, painting warehouse and railing, placing walings, minor repairs to wharf where damaged by boats, and stretching ice-boom from wharf to ice-breaker. A ballasted crib was built and sunk under wharf.

A start was made in March toward rebuilding north ice-breaker and removing piles of old ice-breaker.

Expenditure to March 31:—

Labour	$3,033 68
Materials	1,034 17
Total	$4,067 85

PIERREVILLE.

Pierreville, Yamaska county, is a thriving village on the eastern side of the River St. Francis, 9 miles from its outlet and 28½ miles northwest of Sorel. It is a station of the Quebec, Montreal and Southern railway, making connections with Montreal, St. Hyacinthe, Three Rivers, and Victoriaville. It contains one Roman Catholic

church, two Protestant churches, two banks, insurance offices, one telegraph office, two telephone systems, saw, grist and carding mills, about fifteen stores, and has an extensive lumber trade. Buckskin gloves, mitts, shoes, baskets, and snow-shoes are made here in large quantities by a tribe of Abenakis Indians. Ship building is also engaged in. The population of the village is about 1,200.

In 1904 and 1905, the Department of Public Works built, immediately below the Quebec, Montreal and Southern Railway bridge, a wharf which consists of:—

1. A pile wharf 150 feet long, 48 feet 4 inches wide, and 13 feet high, standing in 5 feet of water, with ice-breaker inclined ½ in 1 at its up-stream end, and double slips along the face.

2. The earth approach, about 400 feet long from 30 to 50 feet wide, with rip-rapped slopes properly inclined on both sides.

3. Of a shed for storage purposes, erected on stone pillars near the approach.

At the last session of Parliament, the sum of $1,700 was voted for repairs to the wharf, and on June 10, 1913, authority was received to expend this amount by day labour.

Work was commenced on May 5, and carried on until July 15, 1913, and consisted in tearing down the northwest end of the wharf, driving back the piling to its original depth, and rebuilding, renewing two-thirds of the flooring, building a concrete retaining wall and ice-breaker inside the upper end of the wharf, and grading the approach.

In the execution of the above works, some 24,000 feet b.m. of lumber, fifty-six loads of stone, thirty-six loads of gravel, thirty-eight loads of sand, and 128 bags of cement were used.

During the fiscal year 1913-14, the expenditure was $1,699.89.

PIERREVILLE MILLS.

Dredging.

Pierreville Mills, or Notre Dame de Pierreville, is a village of about 400 inhabitants situated on the River St. Francis, 3 miles above its mouth, where it empties into Lake St. Peter. The population of the county is about 17,000; the population of the village is mostly navigators and ship builders; they own thirty vessels, having an average length of 110 feet; these boats have to be hauled up in winter to be repaired for the next season.

The object of the dredging is to provide facilities for hauling boats at that place instead of sending them either to Sorel or Yamaska for repairs and construction.

Dredging was performed by departmental dredge *No. 106,* attended by tug *Mina G.*; work was commenced on July 5, and carried on until November 13, 1913, and consisted in the removal of 20,972 cubic yards of cast-over, and 3,640 cubic yards scow measurement.

One cut was made 1,090 feet long, 30 feet wide, with an average depth of 6 feet 5 inches, and finished depth of 8 feet; the material removed was sand and clay.

POINTE À ELIE.

Pointe à Elie is the extreme southeasterly point of Allright island, 2 miles east of the House Harbour Catholic chuch.

The steamer *Lady Sybil* calls at Pointe à Elie for mails and freight, and for shelter during northeasterly gales.

The construction of a landing pier and breakwater will give the best of shelter from all storms, especially from easterly gales that prevail in the spring.

During the fiscal year 1912-13, the crib built ashore in 1911-12, was launched, secured into position, and built up to 4 feet above low-water level. During the last fiscal year, this crib was completed.

Expenditure, $3,396.45.

POINTE AUX ESQUIMAUX.

Pointe aux Esquimaux, Saguenay county, is situated on the north shore of Gulf St. Lawrence at a distance of 425 miles from Quebec. Population, 800.

During last fiscal year, the sum of $932.25 was expended to build a shed for freight on the wharf and part of the flooring was raised and renewed.

The work was carried out by day labour.

POINTE FORTUNE.

Pointe Fortune, a post village in Vaudreuil county, is situated on the south shore of the River Ottawa, 7 miles from Grenville, and 45 miles northwest of Montreal.

It contains two churches, two stores, two hotels, etc. It is the terminus of a branch line of the Canadian Pacific Railway to Rigaud.

In order to better accommodate traffic by water, the Crown purchased, in 1902, from Mr. W. Brown, a wharf, 224 feet long, parallel with the shore, together with two rights of way, one at each end of the wharf, connecting with the public road.

These roads are respectively 130 and 120 feet long by 18 feet and 20 feet wide, and a strip of land between the roadways, 158 feet long by 50 feet wide, 80 feet from the public road and adjacent to the wharf, was also purchased, to be used as a cattle yard, the whole for the sum of $1,000.

During this fiscal year, 1914, the floor stringers were renewed, a 3-inch flooring was placed over the full length, and stone filling to the amount of 80 cubic yards completed the repairs.

This work was performed by day labour. Total expenditure, $997.44.

POLTIMORE.

Poltimore, a village in Labelle county, is located on the Rivière du Lièvre, 18 miles above Buckingham, opposite La Salette.

The float landing was changed from one site to a more advantageous one, at a cost of $11.75.

PONT LAURIN.

River, or Lac, Ouareau, a river of Quebec, rises in a lake in the township of Lussier, Montcalm county, and falls into the River l'Assomption. It is floatable and navigable for small craft.

Six miles from St. Paul de Joliette on Rivière Ouareau, there is a bridge called "Pont Laurin" which has been protected by the department by the construction of a reinforced concrete ice-breaker, completed in December, 1911.

Its dimensions are: 34 feet 3 inches extreme length, and 9 feet 2 inches extreme width at bottom, 22 feet by 7 feet at top, 26 feet high with upstream face nosed 90 degrees and sloped 1 in 2, all other faces being inclined 1 in 24. Steel plate, ¼-inch thick, protects upstream angle.

During the spring of 1913, this ice-breaker had been damaged to a considerable extent by the ice and refuse which tore out part of the concrete to a thickness of 18 inches, and 2 feet below the water line.

Repairs were made in October and November.

PORT DANIEL.

Port Daniel, in Bonaventure county, is situated on the north shore of Chaleur bay, 45 miles west of Percé.

It is an important village, with a population of 1,500 inhabitants. The principal industry of the place is cod and lobster fishing; about sixty barges are engaged in that industry. There is an important saw-mill, and several vessels load lumber there.

The harbour of Port Daniel is one of the best on the coast, and offers very good shelter. The boats doing service from Montreal to Gaspé, and other steamers, use the wharf to land passengers and freight.

The wharf is of the following dimensions: from shore, 210 feet long by 22 feet wide, 120 feet by 30, and 270 feet by 50, giving a total length of 600 feet by 27 feet in height, with 19 feet of water at the outer end.

Spring tide rises 7 feet; neap tide, 5 feet.

During the fiscal year 1913-14, the south side of the wharf, at outer end, was sheathed with piles for a length of 108 feet, and the sheathing of the north side completed. These piles were driven about 10 feet in the ground and bolted to the wharf. The planking and the sheathing of the wharf were also renewed in different places.

Amount expended, $1,500.

PORTNEUF.

Portneuf, Saguenay county, is a lumbering village situated on the north shore of River St. Lawrence, some 52 miles below the mouth of River Saguenay. Population, 800.

During last fiscal year, the head-block of the wharf, which had settled down some 3 feet, was raised to its normal height, and planked over; the slip, which was useless, was filled up. The said block is 110 feet in length by 20 in width; the cost of these repairs amounted to $1,322.76. Some piling timbers have been purchased.

The work has been carried out by day labour. Total amount expended, $1,499.76.

POUPORE.

At Poupore, 12 miles above Buckingham, on the Lièvre river, in the county of Labelle, the department completed, in 1892, a lock and dam, etc., to improve navigation to High Falls.

Plans and specifications were prepared for concrete retaining wall and cribwork training pier improvements at the locks, towards which Parliament appropriated $12,500.

The concrete retaining wall is to replace the original cribwork retaining backfill of lock wall below the dam for a distance of 150 plus 38 lineal feet. The new wall will rest on rock bottom and be generally of a height of 16½ feet. The old cribwork is falling to pieces, owing to the advanced stage of decay, and will be easily removed. The cribwork training pier, 300 feet long, 16 feet wide, averaging 27 feet in height, has been designed to deflect the eddy and cross currents now eroding the bank and seriously interfering with boat navigation immediately below the lock.

During the winter 1914, it was deemed more expeditious to start these improvements by day labour.

Some 120 feet of training pier, 16 feet wide, was built to a height of 5 feet above L.W.L. (February 17 to March 31). In addition, considerable ballast, stone and gravel was hauled to the locks, 75 per cent of lumber sheeting and 70 per cent of iron required were delivered.

Expenditure to March 31, $5,480.53.

Dredging.

The departmental dredge *No. 102* worked on the Lièvre river (June 7 to August 7, and October 13 to 25) making cuts in channel opposite the proposed new training pier, aggregating 1,384 lineal feet by 25 wide, to facilitate navigation in and out of the lock.

A total of 11,383 yards of clay (scow measure) were removed and spoiled in deep water near by.

QUYON.

Quyon, a village in Pontiac county on the Waltham branch of the C.P.R., is located on the north shore of the Ottawa river near the head of Lake Deschenes. Population, 800.

Parliament at its last session voted an amount of $8,000 for the construction of a wharf. Early in the fall, the old wharf owned by the Upper Ottawa Improvement Co. was purchased by the department for the sum of $900, on consideration that the U.O.I. Co., should be allowed to remove the covering, all the approach piers and the cribwork landing-head to within 2 feet of low water. At the close of navigation this work was carried out by the company. Contract plans and specifications were prepared and tenders called for. The contract was awarded to Messrs. T. & J. Moran, for the approximate sum of $7,700.

The proposed structure is to be of open-faced cribwork, extending out some 360 feet, drawing 9 feet at the landing face, and built 9 feet above low-water level. The landing-head is to be 64 feet by 106 feet in dimension and the approach 16 feet wide, 256 feet long. Launch landings are provided in the rear and the wharf finished with wooden handrailings along the approach, and a freight shed 16 by 24 feet.

A survey for the water lot required was made by a Quebec land surveyor in March, and water lot is being acquired from the Quebec Government.

Expenditure to March 31, $1,127.56.

RICHMOND.

Richmond, Richmond county, is a thriving town situated on the through line of the Grand Trunk railway from Montreal to Portland, at the junction of the Quebec line, and on the St. Francis river, 25 miles northwest of Sherbrooke and 76½ miles southeast of Montreal. It has several stores, banks, express, telephone and telegraph offices. The Grand Trunk has a roundhouse and other shops, employing several hundreds of people; the population of Richmond is about 3,000.

On October 10, 1913, authority was received to expend the sum of $650 in repairing the ice-breaker which was built on the up-stream side of the highway bridge, in order to protect the centre pier of the bridge.

Work was commenced on October 16, and completed on November 22, 1913, and consisted in taking off, straightening, and replacing the steel plates on the sloping part of the ice-breaker, after having renewed the face timber which was completely decayed and raising the pier by adding three tiers of timber and filling with stone.

In the execution of the above works, some 8,886 feet b.m. of lumber and timber, two steel plates, and 591 spikes were used.

During the fiscal year 1913-14, the expenditure was $659.81.

RIGAUD.

Rigaud is a post village and seigniory in Vaudreuil county, on the Rivière à la Graisse, 2 miles south of the Quai de Rigaud, a port of call on the Ottawa river. It is a station on the C.P.R. (Montreal to Ottawa short line), 16 miles northwest of Vaudreuil, and 41 miles west of Montreal. It is 8 miles east of St. Eugène, Ont., on the same line, and 75 miles east of Ottawa. It is the seat of Bourget college and St. Anne's convent. The sanctuary of Notre Dame de Lourdes, in Rigaud mountain is, in summer season, a place of frequent pilgrimage. The village has one Roman Catholic church, six stores, one foundry, one branch bank, saw, grist, carding and fulling-mills, besides express and telegraph offices. Population of village, about 800; of parish, 1,050.

The wharf at Rigaud, which consists of a pile construction 72 feet long by 25 feet wide, was completed in February, 1910, with the aid of an indemnity of $1,500 from the Canadian Pacific railway. This indemnity was obtained on the ground that the construction of a new bridge prohibited boats from reaching the old wharf above the bridge, and thus compelled the suspension of local navigation, unless a new wharf be built below the bridge site.

During the present fiscal year, repairs were effected as follows: Renewal of board fence around the cattle yard, on a length of 155 feet; repair of the north corner of the wharf and floor generally; filling of stone and earth on the approach. This work was performed by day labour. Expenditure, $233.40.

RIMOUSKI.

The town of Rimouski, chef-lieu of the county of the same name, is situated on the south shore of the St. Lawrence river, 180 miles below Quebec. Its population is over 4,000.

Rimouski is an important station of the Intercolonial railway, which has a line to and on the wharf, facilitating the import of goods, and especially the exportation of lumber, pulp, and pulpwood.

The exportation was, for last year, 6,364 tons of pulp, $169,794; 18,900,000 feet of lumber, $264,600; 2,000 tons of pulpwood and ties also shipped.

To give an idea of the importance of the lumber trade in the region, I will mention the following companies: Price Bros. & Co., Ltd.; Matapedia Lumber Co.; Price, Porritt Pulp & Paper Co.; Roy & Frère; Turgeon & Vaillencourt; Gagné & Frère, La Cie Industrielle, J. A. Théberge, Banville & Cie., etc. All those firms and others in the surrounding district will make use of the wharf for their shipping, as soon as the proposed work will be completed.

The wharf, which is 2,240 feet in length and 42 to 50 feet in width, constitutes, with the protection of St. Barnabe Island, one of the best harbours.

Spring tide rises 14 feet; neap tide, 8·50 feet.

During the fiscal year 1913-14, the sheathing and the planking of the wharf were repaired; also the foundation of the railway track.

Amount expended, $704.65.

Dredging.

The work done during the fiscal year 1913-14 consisted in the dredging of a cut 2,730 feet in length by 50 feet in width, on the east side of the channel, to 16 feet at low water spring tide, and containing 51,135 cubic yards of dredging, scow measurement. The material removed was clay and a few boulders.

Dredging was also done at the head of the wharf and on the east side; 12,025 yards of material were removed. This dredging was done when it was impossible for the dredge to work outside.

The above mentioned dredging was done by dredge *Progress*.

RIVIÈRE AUX RENARDS.

Rivière aux Renards is one of the most ancient settlements in the county of Gaspé. It is the first important fishing station and business place met with proceeding from Gaspé basin along the south shore up the St. Lawrence. The population is estimated at 1,700.

Some temporary repairs and reballasting was done, so as to prevent outside end of wharf from being destroyed, at a cost of $300.87.

RIVIÈRE AUX VASES.

Rivière aux Vases, in the parish of Ste. Anne de Saguenay, is situated on the north shore of River Saguenay, 6 miles above Chicoutimi; it is the landing place of the daily ferry to Chicoutimi; it is also the centre of the parishes St. Charles, St. Ambroise, and St. Leonard.

The wharf consists of piers 25 feet by 20 feet, spanned over with stringers planked with deals.

During the last fiscal year, the sum of $2,149, was expended in filling up the spaces between the piers, in order to protect vessels coming alongside the wharf against the strong current.

The work was carried out by day labour.

RIVER BLANCHE.

This river is a small tributary of the Maskinonge river, crossing the parish of St. Didace, where the land is very fertile.

During the freshets the land was flooded, thus causing considerable damage in the vicinity.

The parish of St. Didace is situated 9 miles northeast of St. Gabriel de Brandon, the Canadian Pacific railway terminus of Joliette branch, and 21 miles north from Louiseville. Population, 1,500.

Dredging was performed by hand labour, and 4,500 lineal feet of river was deepened from 1 to 3 feet, with a width of 4 feet at bottom, to facilitate the flow of the river.

Some 3,490 cubic yards of sand and some logs were removed. Total cost, $1,359.52.

RIVIÈRE BLANCHE.

Rivière Blanche, or Saint Ulric, in the county of Rimouski, is situated on the south shore of the St. Lawrence river, 21 miles east of Métis, and 9 miles west of Matane.

Rivière Blanche is an important farming settlement. There are a big saw-mill and a planing-mill.

The wharf and its approach is 446 feet in length by 20 feet in width, built on piers of 20 by 20 feet, with a space of 25 feet and a "T" block of 300 feet in length by 25 feet in width.

During the fiscal year 1913-14, the first part of the approach, 46 feet, was partly rebuilt, and three spaces filled in with cribwork; the superstructure was also rebuilt for a length of 200 feet, and the balance temporarily repaired.

Amount expended, $2,996.69.

RIVER BOIS BLANC.

This river takes its source at the foot of the Laurentides, in the parish of St. Justin, crosses the parish of Maskinonge and empties into Lake St. Peter about 1 mile above Maskinonge river.

Some 10,500 lineal feet of this stream has been widened to a width of 10 feet, deepened to an average depth of 18 inches; 6,400 cubic yards of clay were removed and spread on each side of the bank.

Total cost of this work is $1,744.34, and was performed from 1st to 18th July, 1913.

The object of this work was to facilitate the flow of the stream during the freshets.

RIVIÈRE CAPLAN.

Rivière Caplan, in the county of Bonaventure, is situated on the north shore of Chaleurs bay, and forms part of the municipality of St. Charles de Caplan.

The breakwater built on both sides of the entrance of the river is, on the east side, 284 feet in length by 8 feet in width and, on the west side, 60 feet in length by 8 feet in width, with an angle in a southwesterly direction 120 feet by 10 feet, and westerly 47 feet by 10 feet, thence southerly 50 feet by 15 feet.

During the fiscal year 1913-14, the raising of the breakwater was completed and sheathed.

Amount expended, $502.

RIVIÈRE DES VASES.

Rivière des Vases, in the county of Temiscouata, flows through the parish of Isle Verte and empties into the St. Lawrence, about 6 miles west of the Isle Verte church. It forms part of the parish of Isle Verte; population, 2,500.

The chief trade of the place being the sea-moss industry. The small pier or embankment built along the southeast side of the Rivière des Vases, which is also used as a landing by people living on the opposite island, was extended on a length of 55 feet during the last fiscal year.

The work is built on the sloping bank of the river, with a mean height of face of 12 feet.

It is light open-faced cribwork built with round logs filled with stone and earth and sheathed with spruce deals 3 inches thick.

A shed, 16 by 20 feet dimension, was also constructed on that part of the wharf.

The fence of the boundary line between Donat Bérubé and the Government property was thoroughly repaired.

The work was performed by day labour between the 25th of June and the 24th of July.

The total expenditure amounted to $1,499.79.

RIVIÈRE-DU-LOUP (EN HAUT).

This river, which flows through the county of Maskinonge, is divided into several tributaries; the main branch of the river taking its rise at the foot of the Laurentides, at a distance of 74 miles, north, and empties into the St. Lawrence on the northern shore of Lake St. Peter at Louiseville, 21 miles above Three Rivers. The basin of the watershed of this river has a maximum width of 19 miles, draining 583 square miles of fertile land.

The river is navigable at its outlet for a distance of about 3½ miles, to the Government wharf at Louiseville, for boats drawing less than 4 feet of water, during the low-water season.

The population of the town of Louiseville and the five parishes interested in navigation, is 11,993, having several stores, shops, and factories.

Dredging was performed at the outlet of the river from July 8 to October 1, 1913, by dredge *Prince Willie*, the property of the W. J. Poupore Co., Ltd., of Montreal, under contract.

This dredging was performed on a distance of 6,100 feet from the outlet out to the main channel on Lake St. Peter, for a 7-foot channel on a width of 40 feet at bottom.

RIVIÈRE-DU-LOUP (EN BAS).

Rivière-du-Loup, or the town of Fraserville, is the chef-lieu of the county of Temiscouata. It is situated on the south shore of the St. Lawrence, 114 miles below Quebec.

It is a thriving town of over 7,000 inhabitants, and contains several manufactories, including two pulp-mills.

The Rivière-du-Loup point, where the wharf is located, is distant 2½ miles from the village. It is one of the best known and most frequented summer resorts of the St. Lawrence.

There is a branch of the Intercolonial railway extending from the station to the outer end of the wharf, a distance of 6 miles.

Spring tides rise 19 feet; neaps, 12 feet.

During the fiscal year ending March 31, 1914, several important repairs were made to the wharf, as follows:—On the outer face of the "L" of the wharf, the sheathing was fastened, repaired and renewed where needed; about sixty oak planks, 6 inches in thickness and 25 feet long, were replaced. On the southwest face of the wharf, a length of 145 feet by a height of 21 feet was sheathed with spruce, 6 inches in thickness. On the remaining length of that face, together with the northeast face, the sheathing was repaired; all loose deals were secured to the wharf, and a few were renewed. The iron straps protecting the two outer corners and the south corner of the wharf were fastened, and twenty-five new straps were placed where needed.

The stairways on both northeast and southwest sides were repaired and ironed; one of the movable slips was thoroughly repaired. From the rear end of the wharf, outwards, the superstructure was repaired and the flooring renewed on a length of 600 feet. On the approach, sixty pieces of flooring were replaced. Minor repairs were also made where necessary.

The total expenditure being $1,694.02. Work was done by day labour, from 10th of July to 10th of October, 1913.

RIVIÈRE DU MOULIN.

Rivière du Moulin is a new municipality next below Chicoutimi; its population is about 1,000.

During last fiscal year, the sum of $4,146 was expended towards the construction of a bank protection along the Saguenay river in the municipality of Rivière du Moulin, for a distance of 804 feet. It is of round timber construction, 8 feet in width, with an average height of 9 feet, well ballasted with stone, and backfilled with gravel.

The work was carried out by day labour.

RIVER LAGUERRE.

Laguerre river is a sluggish stream emptying into Lake St. Francis, on the St. Lawrence, about one-half mile north of St. Anicet, Huntingdon county. At its mouth, it is navigable for vessels of 4-feet draught, and has a channel of 9 feet approximately throughout the inside flow.

It has been decided to deepen and improve River Laguerre in order to drain and render fit for cultivation, about 20,000 acres of land. During the session of 1911, a sum of $15,000 was voted to commence work.

On August 23, 1911, the construction, in reinforced concrete, of bridge and regulating gates at the mouth of River Laguerre was begun.

The gates, six in number, cover each 6 feet wide and 15 feet high. Length of bridge proper, 42½ feet; stone approaches, 48 and 29 feet long respectively, 20 feet wide at top, with sides riprapped 1 in 1.

The concrete bridge and regulating gates on River Laguerre, in connection with this drainage canal and improvements to the said river, were completed in 1912.

The object of these regulating gates is to allow the flow of River Laguerre into Lake St. Francis when the latter is at lower level than the former, and to prevent Lake St. Francis from over-flowing into the river when the latter is at a lower level than the former.

Work was suspended this year. A special authorization for the expenditure of $300 was allowed, to remove the cofferdams and improve the section at the mouth.

Total expenditure $295.

RIVER LA PIPE.

River La Pipe (St. Henri de Taillon), Chicoutimi county, is a new parish situated on the north of Lake St. John; it is a post village, has Government telegraph service, several stores and saw-mills. Population, 800.

During last fiscal year, the following repairs were made to the wharf:—

The flooring, on a distance of 200 feet by 25 feet in width, was entirely renewed; 250 feet of stringer, 10 inches by 12 inches, have also been placed, and 200 loads of gravel were placed in the approach.

The work was carried out by day labour. Amount expended, $638.32.

RIVIERE NOUVELLE.

Rivière Nouvelle, in the parish of St. Jean l'Evangéliste, county of Bonaventure, takes its rise in the county of Rimouski, and, passing through farming lands of great fertility, flows out into Chaleur bay at St. Omer.

Rivière Nouvelle is an important river for lumbering; several companies have limits on the river and its tributaries.

The river during the spring freshets is very rapid, and the floating of logs has done great damage to valuable properties and to the railway bridge. The road has been destroyed and changed in many places.

In 1911-12, thirty-two directing piers were built to remedy this, and a space was left between each of them but the effect of the current was just as bad.

During the fiscal year 1913-14, a line of brush-work, loaded with stone, was commenced, and 1,900 feet in length were partly built on a height of 6 feet.

Amount expended, $816.58.

RIVIÈRE OUELLE.

The pier is situated at Point aux Orignaux, 5 miles distant from the village of Rivière Ouelle, in the county of Kamouraska, on the south shore of the St. Lawrence river, opposite Murray Bay.

A branch of the Intercolonial railway, built from Rivière Ouelle station to the outer end of the wharf, connects with a steamer which crosses the St. Lawrence several times daily during the summer season, calling at Murray Bay and other places on the north shore. In winter, the service is also daily.

Spring tides rise 20 feet; neaps, 12 feet.

The heavy trains coming on the wharf require a strong structure that must be kept in a state of solidity. In order to ensure safety, the sheet piling, begun on the east side, was extended on a length of 100 feet, during the last fiscal year. Pitch pine piles 40 feet long 10 by 12 inches dimension were used, sunk 8 feet into the bottom and secured to the face timbers with iron bolts. The shore end of the wharf was sheathed on a length of 100 feet with spruce deals 3 inches thick, and 150 feet of flooring were renewed on a width of 12 feet. Short cross-ties were inserted and the whole was filled with stone with an earth and gravel finish. The stairway of the west side of the wharf was entirely renewed. The railing was replaced on a length of 300 feet, together with 200 feet of capping. The railing was also repaired on a length of 300 feet. The outer corners of the wharf were sheathed with hardwood 30 feet long, 8 by 14 inches, and four mooring posts were added where required.

Painting and minor repairs were also performed. The works were performed between the 1st of June and the 13th of November.

The total expenditure amounted to $3,698.51.

RIVER ST. CHARLES.

An area of approximately 185,000 square feet, opposite New Market place, was dredged to a depth of two feet at low water to reduce a sandbank that stood in the way of navigation; 51,780 yards (place measurement) of sand were removed by the dredge *Stephen D*, operated by La Cie. Etienne Dussault, between June 28 and November 26. Rate, 11 cents per cubic yard. Total expenditure, $5,695.80.

RIVER ST. FRANCIS.

The river St. Francis rises in the counties of Compton, Beauce and Megantic. It collects the water of lakes St. Francis, Aylmer, Weedon, and several small lakes; it flows through the Eastern Townships for a distance of 173 miles, and empties into the St. Lawrence river at the head of Lake St. Peter. The drainage area of the St. Francis river is approximately 3,370 square miles.

Dredging.

The object of the dredging performed is to make the river navigable from the St. Lawrence to St. François du Lac and Pierreville, where considerable traffic is handled.

Dredging was commenced on June 3 and carried on intermittently until November 7, 1913, and consisted in the removal of 101,604 cubic yards, scow measurement, and 59,999 cubic yards, place measurement, of clay and sand.

Of the 101,604 cubic yards, scow measurement, the departmental dredge *St. Louis* has done 13,370 cubic yards, leaving 88,000 cubic yards done by contract. The dredge employed on this work was *No. 6*, of Montreal.

Expenditure during the fiscal year 1913-14 was $25,555.14.

RIVER ST. LOUIS.

River St. Louis rises between the villages of St. Barbe and St. Stanislas, some 8 miles south of Valleyfield and, running east through the parishes of Cartier, St. Louis de Gonzague, and St. Etienne, flows into Lake St. Louis at Beauharnois, some 20 miles from the starting point.

From May 3 to December 13, 1913, departmental dredge *No. 101* continued the deepening of river-bed started in 1904 and carried on every year since. Some 10,612 cubic yards, scow measurement, of clay, and 2,305 cubic yards of solid rock were dredged or blasted, deposited on both shores, and levelled off. Hours of actual dredging, 1,433; width of cut, 40 feet; face, 3 to 5 feet; distance advanced, 2,756 feet.

This work necessitated the building of a temporary dam so as to float the dredge, the latter being 40 feet wide; it was also found imperative to remove the 38-foot span and one abutment of the Pont Rouge, and construct a temporary trestle bridge a little distance downstream.

The object of this dredging is to minimize the disastrous floods of each year, during freshets and after heavy rains, by increasing the flowing section of the river and heightening its banks.

To date, dredging is completed up to Pont Rouge, or 3 miles from starting point at Symon's bridge.

RIVIÈRE ST. LOUIS.

Rivière St. Louis takes its rise at the foot of the Laurentides, flows through the Parish of St. Paulin, and empties into the River Maskinonge near the Great Northern railway.

During spring freshets and after heavy rains, the river overflows its banks, especially in the village of St. Paulin, and floods extensive farm lands.

In order to minimize the disastrous effects of these floods, the department, in 1912, opened a channel, and work was resumed on the 13th May, 1913, and discontinued on the 16th August, from section 1,000 feet east of the road leading to St. Paulin church to 5,300 feet west of the said road, for a distance of 6,300 feet.

The work was done by day labour, a channel was opened with a mean depth of 2 feet; 3,425 cubic yards of sand, gravel, boulders, and logs were removed.

Total expenditure, $2,244.63.

RIVER ST. MAURICE.

The river St. Maurice flows southward and empties into the St. Lawrence at Three Rivers.

Grand Piles to La Tuque.—For a distance of 69 miles there is a good channel for vessels drawing less than 4 feet of water.

The dredging was performed by dredge *St. Maurice* at Mekinac shoal on the 56th mile on the river. The work was commenced on July 7, and discontinued on July 16, during which time, 3,840 cubic yards of gravel, clay, and sand were removed, making a channel 40 feet wide for a distance of 766 feet.

Ile aux Morpions (45th mile).—On the 16th July, 1913, the dredging plant was removed to Ile aux Morpions crossing, where 6,277 cubic yards of clay, sand, and gravel were removed, making a channel 40 feet wide for a distance of 1,041 feet.

The channel was dredged to a depth of 4 feet at low water. This work was completed on August 11, 1913.

Ricard Crossing (43rd mile).—On the 12th August, the dredging plant was removed to Ricard Crossing, where 6,846 cubic yards of clay and sand were removed and dumped on the lower side of the channel, also making a channel 40 feet in width, and 4 feet deep for a distance of 1,580 feet. The work was discontinued on the 27th August, 1913, to remove a shoal on the 39th mile.

St. Jean des Piles, Pointe à Trudel (39th mile).—To remove a shoal obstructing the channel in the range of landmarks, the work at this place was commenced August 30, and completed September 19, during which time 8,674 cubic yards of sand and gravel were removed on a width of 40 feet to a depth of 4 feet below low-water level for a distance of 1,557 feet.

St. Rock de Mekinac, Ricard Crossing (43rd mile).—The dredge St. Maurice, after having completed the urgent work at Pointe à Trudel, was again towed up the river to resume the work at Ricard's Crossing. The work was commenced on the 23rd September and discontinued October 21, during which time 8,271 cubic yards of clay and gravel were removed and cast-over on the lower bank of the channel for a distance of 2,106 feet. The channel dredged measured 40 feet in width to a depth of 4 feet at low water.

St. Jean des Piles, Pointe Madeleine (38th mile).—On the 24th October the dredging plant was removed to Pointe à Madeleine to be put in winter quarters, but had to remove a small shoal obstructing the berth. Work was commenced on the 24th and completed on the following day, 25th October, where 562 cubic yards sand and gravel were removed, and cast-over on the lower side for a distance of 285 feet. The work was then discontinued for the season.

Rapide Manigance (56th mile) Stone Lifter.—The stone lifter was put in commission on August 1, 1913, and was towed up to the 56th mile, on the western side of the channel to remove boulders obstructing the floating of logs and causing a great quantity of logs (3,000,000) to float by the channel in the rapid, thus causing a serious impediment to navigation.

The work was commenced August 4 and discontinued October 22, during which time 279 boulders were blasted, measuring 653 cubic yards. The average cost was $6.87 per cubic yard. Total expenditure, $4,485.07.

The *Stone Lifter No. 1* was laid up for winter at Pointe Madeleine on October 25, 1913.

Western Channel.

The river St. Maurice flows through the city of Three Rivers in the county of St. Maurice on the northern bank of the St. Lawrence river, 82 miles below Montreal, and 78 miles above Quebec. Population, 22,000. Important dredging has been executed at the mouth of the western channel, during the summer of 1913, by the dredge *St. Pierre,* owned by Mr. Antoine St. Pierre, of Three-Rivers, for a sheltering basin to be used especially by the ice-breakers the *Montcalm* and *Lady Grey.* The dredging was performed on a distance of 300 feet in length by 150 feet in width to a depth of 15 feet below low-water level.

The work was commenced on the 22nd September and discontinued October 28, 1913, during which time 20,539 cubic yards of clay and sand were removed. Total cost, $3,080.85.

Outlet.

(1) Under agreement with Antoine St. Pierre, (2) under contract No. 9449, date 19th June, 1913, with the W. J. Poupore Co., Ltd., dredges *Duke of York* and *Prince Willie.* (3) Departmental dredges *Progress, Ottawa,* and *International.*

Quantity removed, 114,491 cubic yards. (1) 19,402 cubic yards of sand at 12 cent, scow measurement. (2) 57,929 cubic yards at 15 cents, scow measurement; also 2,113 cubic yards at 10 cents, (3) 35,047 cubic yards by the departmental dredges. Haul 1½ to 2 miles. (1) Amount paid contractor, $2,328.24; (2) $8,583.70.

Work commenced May 3, completed September 18, 1913. Depth of water made below zero: (1) 5 feet, (2) 8 to 11 feet, (3) 4 feet. Object of work: to dredge a channel 4 feet deep for floating logs, and to dredge a channel in eastern branch of river to give 8 feet depth to loading wharves.

RIVIÈRE VERTE,

East side.

Rivière Verte, which flows through the parish of Isle Verte, in the county of Temiscouata, empties into the St. Lawrence, about three-quarters of a miles west of Isle Verte church.

To facilitate the flow of the water during the spring freshets, the channel of the river was deepened, and the quantity carried away by shovel digging and carting was about 5,000 cubic yards. The work was done by day labour during the months of July, August and September.

The total expenditure amounted to $1,499.60.

West side.

During the fiscal year, in order to facilitate the landing of boats engaged in the sea-grass industry in Rivière Verte, the channel of the river, in front of the wharf, was deepened. Boulders obstructing the channel were blasted, and the material removed was used to repair the earth-filling of the wharf. Some 5,500 feet b.m. of spruce deals, 3 inches in thickness, were used in sheathing a part of the outer face of the wharf. The works were done during the months of September and October. Amount expended during this fiscal year is $1,499.81.

The work was done by day labour.

ROBERVAL.

Breakwater.

During last fiscal year, the construction of the breakwater in front of the Roberval harbour has been continued, the work done consists:—

1. In raising the portion built in 1913, by two courses of timbers on a length of 430 feet by 14 feet wide at the top.

2. In the completion of the shore end on a distance of 230 feet in length by 14 feet in width at the top, by an average height of 5½ feet.

3. In the completion of the outer end on a distance of 240 feet in length by 25 feet in width, with an average height of 5 feet.

The work was carried out by day labour.

Amount expended, $4,004.09.

Wharf and Slip.

The town of Roberval, Chicoutimi county, is the terminus of the Quebec and Lake St. John railway, it is the shire-town of Lake St. John county, and the centre of navigation on Lake St. John. Population, 3,000.

During last fiscal year, the northeast corner of the wharf was raised some 2 feet; the slip, which was 35 by 10 feet, was renewed and a movable slip has been placed; the

outer front has been sheathed; the flooring and stringers, on a distance of 400 feet by 30 feet, were renewed; the slip on the northern side, which was a cause of obstruction, was filled up; all the sheathing on the north side of the wharf has been renewed; the freight shed and the waiting-room have been repaired, and the approach leading to the wharf has been improved.

The work was carried out by day labour at a cost of $5,800.60.

Dredging.

The dredging in Roberval harbour was done by the Government dredge *Lac St. Jean.*

The object of the work was to enlarge the harbour, which was too small to contain boats seeking shelter during heavy gales.

Some 60,000 square feet were dredged to a depth of 7 feet below low water spring tides.

The work started on the 24th of June and continued until the 22nd of November.

The material dredged was clay and sand; 19,642 cubic yards were removed.

RUISSEAU À LA LOUTRE.

Ruisseau à la Loutre, a small river in the county of Rimouski, emptying into the St. Lawrence about 25 miles below Matane. It forms a cove used as a harbour by fishermen and for the shipment of lumber to European markets. This lumber is loaded from lighters into ships anchored outside.

It is a new settlement, but very progressive. There is an important saw-mill.

On the 15th October, 1912, an Order in Council was passed granting the following authorities in connection with the harbour improvements at Ruisseau à la Loutre.

1. To purchase from the Quebec Government the beach lot with a wharf thereon for the sum of $50, and to pay $25 for the letters patent of the said lot;

2. To purchase from François St. Gelais the wharf and approach for the sum of $1,200.

During the fiscal year 1913-14, the wharf was repaired, and a portion of it, carried away by the breaking of a dam, was rebuilt, and an extension of 100 feet in length by 30 feet in width and 22 feet in height was built.

Amount expended, $4,288.33.

RUISSEAU LEBLANC.

Ruisseau Leblanc, in the county of Bonaventure, is situated on the north shore of Chaleur bay, about 9 miles west of Bonaventure, and belongs to the parish of St. Charles de Caplan.

It is one of the best fishing places of the bay, with over forty boats engaged in that industry.

There is a breakwater on the west side of the ruisseau, which is as follows: A protection work on shore, 80 feet in length by 10 feet in width, then the breakwater itself, 375 feet in length by 20 feet in width, and turning in a southeasterly direction, 125 feet in length by 20 feet in width.

This breakwater was not sufficient to give shelter and to prevent the accumulation of sand at the entrance of the ruisseau, and during the fiscal year 1913-14, another breakwater was built on the east side, 400 feet in length, from shore, by 12 feet in width, built in brush work and loaded with stone. A head-block, 80 feet in length by 20 feet in width, was also built in open-joint cribwork.

Amount expended, $4,984.99.

STE. ADELAIDE DE PABOS.

Ste. Adelaide de Pabos, commonly called Little Pabos, is an important parish in the county of Gaspé.

During the last fiscal year, the breakwater was extended 100 feet at the outside, and a length of 60 feet was built to close a gap at the seashore end, by contract, at a total cost of $6,485.

ST. ANDREWS.

St. Andrews is located on the North river, 3½ miles from the Ottawa, and has a population of 700.

The centre of a prosperous farming district that ships cattle, butter and cheese. During navigation, all inbound freight is shipped by the river route.

Dredging.

The departmental dredge *Nipissing* worked (August 5 to September 27), making a basin at each end of the wharf, and improving the channel of the North river below the wharf. Three cuts were made at the wharf aggregating 209 feet long by 23 wide. Two cuts 240 feet and 283 feet long by 23 wide, and averaging 7 feet of cutting, were made through a shoal below the rapids to straighten the channel and facilitate navigation. The departmental stone lifter was employed for about one week on this work, and some 75 yards of boulders were taken out. Some 4,545 cubic yards of hard-pan and boulders (scow measure) were removed and spoiled in deep water, some 4 to 6 miles distant.

STE. ANNE DES MONTS.

The Ste. Anne river flows into the St. Lawrence at the west end of the village of Ste. Anne des Monts, one of the oldest and most important settlements of the Gaspé peninsula, some 57 miles below the nearest railway station, Matane.

During the first part of this fiscal year, the superstructure of the training pier damaged, on account of insufficient ballast, on a length of 150 feet, was repaired and faced with sheetpiling.

Expenditure, $3,378.34.

STE. ANNE DU SAGUENAY.

Ste. Anne, Chicoutimi county, is situated opposite the town of Chicoutimi, where a ferry boat makes hourly trips; it is an important farming district. Population, 2,000.

During last fiscal year, an addition of 116 feet in length by 26 feet in width and 25 feet in height, was built on the west side of the old wharf. It is of common round-timber construction, well ballasted with stone, sheathed with 4-inch deals and floored with 3-inch deals.

The work was carried out by day labour.

Amount expended, $7,562.59.

ST. ANTOINE.

St. Antoine, a post village and parish in Verchères county, on the River Richelieu, and on the Montreal and Sorel railway, 7 miles from Contrecœur station, and 15 miles from St. Hilaire. It contains one church, three stores, one temperance hotel, one carriage factory, one wood factory, besides telephone service. Population, 1,500.

A new wharf had been started here in October last, for which the department has entered into contract with O. Paul, of Sorel, for the sum of $9,400.

This wharf, when completed, will consist of:

(*a*) A stone filled crib head-block of 96 by 32 feet by 17 feet high, sunk in 7 feet at low water.

(*b*) A stone-filled approach, with hand-laid riprap on each side, sloping 1 in 1, and 200 feet long by 18 feet wide at the top.

At the end of the fiscal year, 90 per cent of the work was completed, for which a gross amount of $9,100 was allowed the contractor, and $8,190 was paid him.

Owing to the difficulty in transportation, it was impossible to have all the stone required on the site before the winter roads went out. The completion of the approach, which needs 40 toises of stone in excess of the quantity on the site, will complete the work. It is estimated that the contractor may finish this wharf by the end of June next.

Work suspended temporarily.

Dredging.

During the summer of 1913, the department undertook dredging improvements near St. Antoine at two different localities.

A.—Opposite de C. Colette property.

This property is situated about 1½ miles downstream or north of the parish church.

From May 16 to June 20, departmental dredge *No. 119* or *Richelieu* removed 8,895 cubic yards, scow measurement, of clay and boulders in the making of an 8-foot basin, 400 feet extreme length and 100 feet extreme width. Total hours of actual dredging, 226; dumping grounds, half mile away; width of cuts, 22 feet; face, 1½ to 10 feet; total distance advanced, 1,430 feet.

The object of this dredging is to facilitate the loading of hay and farm produce.

Mr. Colette has given to the Crown and to the public free right of way from King's highway to the dredging site.

B.—Opposite the A. Marchessault property.

The latter is situated immediately downstream or north of C. Colette's property.

From June 23 to July 14, departmental dredge *No. 119* removed some 6,243 cubic yards, scow measurement, of clay and boulders in the making of an 8-foot basin, 400 feet extreme length and 80 feet extreme width. Hours of actual dredging, 129; dumping grounds, half-mile away; width of cuts, 22 feet; face, 2 to 8 feet. Total distance advanced, 1,090 feet.

The object of dredging was also to facilitate the loading of farm produce.

Mr. Marchessault has also granted perpetual free right of way, to public, from King's highway to the dredging site.

ST. ANTOINE STATION.

St. Antoine station is on the Q. M. & S. railway, 4 miles east of Verchères, and 5 miles west of Contrecoeur. It is also called Pointe Dansereau.

A site was chosen on the shore of cadastral No. 267, in the 1st concession of the parish of Contrecoeur, for the construction of a wharf consisting of:—

1. A crib head-block, 50 feet long by 30 feet wide by 14 feet high, to be sunk in 8 feet of water;

2. A stone approach, 215 feet long by 18 feet wide at the top, with slopes 1 in 1 on each side.

Work was commenced at the beginning of September, and completed in November, by day labour.

In order to have this wharf in good condition for traffic, approximately 2,000 feet of road to the King's highway would need to be levelled and macadamized.

Expenditure, $4,698.80.

ST. CHARLES BORROMEE.

St. Charles Borromee, Chicoutimi county, is situated on the south shore of La Grande Décharge of Lake St. John, about 21 miles above Chicoutimi; it is an important farming parish with a population of about 800.

During last fiscal year, the floorings and stringers on both wharves were repaired; on the inclined plane, on a distance of 80 feet by 32 feet, the flooring and stringers were removed and the spaces filled up with earth and stone, and on the north side some piles were driven in contemplation of building a shed thereon.

Work was carried out by day labour.

Amount expended, $627.73.

STE. CLOTHILDE.

Grand Marsh.

Ste. Clothilde de Chateauguay, a post village and parish in Chateauguay county, on Norton creek, 2 miles from Holton, and 9 miles from St. Rémi, on the G. T. R. It contains a Roman Catholic church, two stores, one hotel, two saw-mills, and three butter factories, with express and telegraph offices at St. Remi, and banking facilities at Ste. Martine, capital of the county. Population of parish, 1,000.

The work undertaken by the department consists in excavating Norton creek in order to increase the flow of water during the spring freshets, and thus drain approximately 18,000 acres of land known as Grand Marsh, practically flooded all year round.

This excavation, which is in solid rock, will be approximately 4 feet deep, by 60 feet wide, and 3,450 feet in length.

During the present season, 540 feet in length, 60 feet in width, and 3.5 feet in thickness have been removed, forming 4,725 cubic yards, which were placed on each shore. It may be estimated that one-third of the entire work is now completed, with approximately 20,000 cubic yards of rock still to be excavated.

This work was performed by day labour.

Total expenditure, $4,491.78.

STE. CROIX.

Work performed at Ste. Croix, county Lotbinière, in the past fiscal year, to clear the site and surroundings of proposed wharf extension, consisted in removal of boulders and large stones from same; the work spread over an area of 83,000 square feet of beach, extending from low-water line of spring tides running back, or south, to end of the wharf completed in 1912.

Proposed extension running out 350 feet will have a roadway length of 300 feet with 20 feet width on top, usual batter of 1 in 10 feet; the additional 50 feet is a wing or "L" running east at end of roadway; for both structures a stretch or strip 36 feet wide by 400 feet long was cleared from the end of the present wharf in a straight line out to low water of spring tides; also 10,000 square feet on site of "L" or outer end block for same and approach from east and northeast; some small reefs at low-water edge were also levelled.

On line with the proposed extension, site of head-block and east approach thereto, some 89 toises of huge boulders, more than half measuring from 5 to 10 cubic yards, were blasted, broken up with sledge hammers, removed, hauled away a distance of 300 to 500 feet; a certain quantity was also placed as riprap, along foundations of present structure, on east side where scouring occurred; the heaviest were placed some short distance east of the site of the extension to act as a breakwater for the heavy sea which strikes with terrific force at that point, during strong east and north-east gales.

The approach on the east side was also worked over on an area of 59,000 square feet; there and elsewhere, 235 toises of stone and boulders of somewhat smaller dimensions were broken but not removed; they will likely be swept away by the ice in the spring; if not, they will be used as riprap to protect foundations of new structure.

Cost of blasting, breaking up, removal, hauling, and replacing of 89 toises of broken boulders on east side of wharf and proposed extension, estimated at $8.75 per toise, $778.75. Breaking up of 235 toises left on ground at $5, $1,175.

Total expenditure, $1,953.75.

ST. CUTHBERT.

St. Cuthbert, a post village in Berthier county, 2 miles from St. Cuthbert station on the C. P. railway and Canadian Northern Quebec railway. It has several saw, grist and carding mills, and fourteen stores. Population, 800.

An appropriation of $1,000 was authorized during last session for the construction of two reinforced concrete ice-breakers, in Chicot river, 1 mile from the village of St. Cuthbert. Object is to protect a bridge, on the main highway, exposed to spring freshets and timber drives.

The dimensions of these ice-breakers are as follows: top measurement, 1st, 20 feet by 4½ by 7 feet high; 2nd, 20 feet by 4½ by 14 feet high. The outside faces taper 1 in 12.

Work started in August and was completed in October. Expenditure, $1,026.35.

ST. DENIS.

St. Denis, a flourishing post village and parish of St. Hyacinthe county, on the River Richelieu, 18 miles from St. Hilaire station, 7 miles from Contrecœur, on the Montreal and Sorel railway. The village contains one Roman Catholic church, one convent, one hospital, eight primary schools, one commercial college, one bank, one savings bank, ten stores, one hotel, saw-, flour- and planing-mills, six butter and cheese factories, three carriage factories, three furniture factories, cutlery, and sash and door factories, one tombstone manufactory, and one bank (Provinciale), and telephone office. Population, 870.

The pile wharf, built in the autumn of 1909, consists of:—

1. A close-faced crib ice-breaker of 14 feet by 32 feet 5 inches.
2. A head-block, 75 feet long by 32 feet 5 inches wide, standing 19 feet 3 inches high in 9 feet of water at low level.
3. A stone approach, from 56 to 82 feet long and 35 feet wide, with sides riprapped and sloped 1 in 1.
4. A freight shed 20 by 24 at downstream intersection of head-block and approach.

The following improvements were completed during the summer months: A pile wharf extension of 30 by 20 feet was added to the north end of the old structure; the widening of the approach to the extension; an enlargement of 12 feet by 20 feet of the freight shed; a concrete side-walk leading to the wharf, 100 feet by 4 feet.

This work was done by day labour. Expenditure, $3,342.01.

ST. ELOI (POINTE À LA LOUPE).

St. Eloi is a post village in the county of Temiscouata, on the south shore of the St. Lawrence river, 17 miles below Rivière du Loup. It has a population of 1,000, mostly farmers.

To aid the sea-moss industry, which constitutes one of the chief resources of the community, a small landing pier was built in 1909.

During the last fiscal year, the superstructure of the wharf was raised and levelled.

At the outer end, a length of 130 feet was raised by adding three rows of face-timbers with cross-ties and stringers. The space within was filled with stone ballast and the top was covered with spruce deal flooring 3 inches thick.

Towards the shore end, the superstructure was also raised 1 foot, and the surface finished with small stones and sand. Some spruce sheathing was placed on each side of the wharf.

The road leading to the wharf, 300 feet in length, was raised by the addition of a layer of 2 feet of gravel.

These works were done during the months of July, August, and September.

ST. EMÈLIE.

Sundry repairs to wharf, incidental with making it ready for opening of navigation, were made in spring, followed by the building of a first-class substantial movable building for freight; dimension 16 by 18 feet, height in front 12 feet, with 10 feet in rear, flat slanting roof 18 by 20 feet, covered with galvanized corrugated iron, shed painted inside and outside.

An old freight shed, on outer end of wharf, was repaired and made into a temporary waiting-room at inner end of wharf. The cost of the two buildings for materials and labour was $182.45.

With a view of having the roadway cribwork built all through of cedar timber, 61,666 feet b.m. sawn and hewn square, was purchased at $22 per 1,000 delivered at Ste. Emèlie wharf, or $1,356.65 for the whole lot.

As some scouring occurred last year, along the present approach on beach, and in view of preventing its extension this present spring, some 12 toises of stone ballast were carted over the ice in March and placed as riprap along the beach at high-water line.

ST. FÉLICIEN.

St. Félicien, Chicoutimi county, is the most important farming parish of the Lake St. John district, situated on the west side of Lake St. John, 18 miles above Roberval. Population, about 1,800.

During last fiscal year, the flooring and stringers on the wharf were entirely renewed on an area of 3,605 square feet; mooring posts and cap pieces were renewed, and the freight shed repaired.

The work was carried out by day labour.

Amount expended, $789.66.

Dredging.

The dredging done in the channel was to remove some of the cast-over which was obstructing navigation.

The work was done by the Government plant *Lac St. Jean*, and started on 28th May and continued until 19th June.

The amount of dredging done was 885 cubic yards.

STE. FÉLICITÉ.

Sainte Félicité, in the county of Rimouski, is situated on the south shore of the St. Lawrence river, about 11 miles east of Matane.

Ste. Félicité is a farming settlement and a lumbering district. There is a saw-mill and a butter factory.

On October 5, 1912, an Order in Council was passed authorizing the acceptance of the tender of Misael Bernatchez, of Montmagny, for the construction of a landing pier of the following dimensions: 440 feet in length by 22 feet in width, built of open-faced cribwork, with a head-block of 100 feet in length by 30 feet in width, having a batter of 1 in 12, to be built close-faced.

The work was done during the fiscal year 1913-14, fully completed and loaded with stone. The 440 feet of open-faced cribwork were sheathed with 3-inch plank.

Amount expended, $14,779.19.

ST. FRANÇOIS DU LAC.

St. François du Lac is the county town of Yamaska county, situated on the west side of the River St. Francis, 9 miles above its mouth, where it empties into Lake St. Peter. It is a station on the Quebec, Montreal and Southern railway; the population of the town is 700; it has post office, two telephone systems, one R. C. church, one convent, three general and three grocery stores, one brick factory, one sash and door and metal cheese-basin factory. The registry office for the county is situated here, and the sittings of the Circuit Court are held here. Abenakis mineral springs, a very popular health resort, is situated on the river about 3 miles below St. François du Lac. The surrounding district is rich agriculturally; exports are hay, butter, cheese, cattle, brick, and pine timber.

St. François du Lac wharf, built in 1908-9, consists of:—

1. A pile head-block, 21 feet wide, 142 feet long outside face, upstream 48 feet of which 13·2 feet above zero gauge, the remaining 94 feet being at 9 feet 4 inches, to be used at low water. Head-block protected by close-face crib ice-breaker, 30 by 25 feet, sunk in 8 feet of water and raising 16 feet 7 inches above zero gauge; 8 feet of water all along head-block.

2. An earth and stone approach 80 feet long and 30 feet wide.

On June 18, 1913, authority was received to expend the sum of $80, and on February 4, 1914, authority was received to expend the sum of $30 at this place, all by day labour.

Work was commenced on July 15, 1913, and carried on intermittingly until February 16, 1914, and consisted in renewing 100 feet long of coping which was broken and carried away by the ice; removing a 4-inch layer of sand and mud brought on the wharf by the high water; placing, in the spring of 1913, the freight shed which had been removed for the high-water season; and removing, in February, 1914, that freight shed in order to place it in a safe place for the high-water season.

In the execution of the above works, some 500 feet b.m. of lumber were used.

During the fiscal year 1913-14, the expenditure was $110.

Dredging.

Brisebois channel is a branch of the St. Francis river, which divides into several channels, amongst which is Brisebois channel; on this channel are located the famous Abenakis mineral springs.

The object of the dredging is to provide sufficient waterway for boats to reach the springs, which are very popular.

Dredging was performed by departmental dredge *St. Louis,* attended by tug *Daisy;* work was commenced on July 26, and carried on until September 3, 1913, and consisted in the removal of 2,186 cubic yards, scow measurement, and 4,817 cubic yards, place measurement, the latter amount being all cast-over.

Width of cut, 35 feet; average depth of cut, 7 feet, and the material dredged was sand and clay.

ST. FULGENCE.

St. Fulgence, Chicoutimi county, is a farming and lumbering place of about 1,200 inhabitants, and is situated some 9 miles below Chicoutimi, on the north shore of River Saguenay.

During last fiscal year, the following repairs and improvements were made to the wharf:—

A trail of 440 feet in length by 6 feet in width has been placed in the centre of the wharf; the old slip at the outer end, which was 23 feet by 9 feet, has been filled in, a new slip of 15 by 50 feet has been built along the west side of the wharf, and a small shed of 8 feet by 16 has also been built.

Work was carried out by day labour.

Amount expended, $1,205.84.

Dredging.

During last fiscal year, the sum of $1,485.65 has been expended in the continuation of a small channel at St. Fulgence, from the wharf to the low-water line.

The work consists in a cut 30 feet in width, 300 feet in length, by an average depth of 3 feet. On the 300 feet performed, 125 feet had to be blasted, as the material to be dredged was too hard for the plant.

Some dredging has also been done around the slip of the wharf.

Some 1,560 cubic yards, scow measurement, have been dredged and scowed away, according to soundings taken after the work had been done.

The work was performed by the Government steam derrick, to which an orange peel bucket had been adapted.

The object of this work is to permit the small boat plying twice a day from St. Fulgence to Chicoutimi, to get to the wharf at about half-tide.

ST. GABRIEL DE BRANDON.

St. Gabriel de Brandon, a thriving post village in Berthier county, on Lake Maskinonge, on the C.P.R., 24 miles from Joliette. It contains two churches (Episcopal and Roman Catholic), four hotels, eighteen stores, one tannery, one brick factory, one door and sash factory, and several saw and grist mills. It has also a bank and express and telegraph offices. Population, 820; of parish, 3,500.

On the Maskinonge river, between St. Gabriel de Brandon and St. Charles de Mendeville, there is a bridge exposed to spring freshets and ice-shove. Parliament, during its last session, authorized an amount of $2,000 for the construction of two ice-breakers intended to protect this bridge, which is the thoroughfare from north to south in that section of the country.

The dimensions of both ice-breakers are 6½ feet by 20 feet by 10 feet high, tapering 1 in 12.

Work started in the month of June and was completed in the month of November.

Expenditure, $1,252.20.

ST. GÉDÉON.

St. Gédéon, Chicoutimi county, is one of the most important villages of Lake St. John, and is situated on the south side of the said lake, near the mouth of La Petite Décharge. Population, 1,500.

During last fiscal year, the sum of $813.36 was expended in blasting and removing a reef which was situated in the channel leading to the wharf at St. Gédéon, and which was very dangerous at low water.

The work was carried out by day labour.

ST. GEORGES DE MALBAIE.

St. Georges de Malbaie cove is situated just opposite the St. Georges de Malbaie church in the centre of the parish, some 6 miles northwest of Pointe St. Pièrre, and 9 miles southeast of Douglastown, giving altogether some 15 miles of coast where fishermen are exposed to north and easterly winds and in case of storms have to seek refuge at Gaspé, or use such small flats that they can haul their boats high and dry every night.

A breakwater, composed of half star-shaped isolated cribs, with 20-foot spaces, had been commenced on the 10th of October, 1911.

Three cribs, with a base of 45 feet, have been built in position up to coping and completed. This short portion of breakwater affords the best of shelter in all storms.

Expenditure, $3,899.70.

SAINT GODFROI.

Saint Godfroi, in Bonaventure county, is situated on the north shore of Chaleur bay.

It is an important place with a population of about 2,500, whom, for the most part, are engaged in the fishing industry; farming is also flourishing.

During the fiscal year 1913-14, the work done consisted of minor repairs to the wharf.

Amount expended, $60.03.

ST. JEAN DES CHAILLONS.

The trestle roadway approach to wharf, alongside of cliff, built for immediate requirements in 1908-9, on side wharf, was completely done away with, and another structure for the same purpose was reconstructed on top of the retaining wall, under the cliff.

The retaining wall being 10 feet higher than the side wharf had to be raised to meet extra height required to connect with approach over the hill.

The following quantity of timber entered into new construction, besides whatever good and serviceable was to be found in the old trestle:—

	Ft. b m.
Cedar timber sawn to square dimensions of 10 to 18 inches..	55,800
British Columbia pine 12 inches by 12 inches..	9,500
3-inch tamarac deals..	8,400
5-inch hemlock deals..	935
Black birch..	150

The seven crib supports for trestle were started in 1912 and finished in 1913 to receive and support the trestle roadway timbers to connect with wharf; the latter had to be raised (on an incline plane at inner end) on a length of 108 feet by 14 wide and

9 feet in height at its highest; to this was added an open-faced crib of the same cedar timber and trestle work on the side wharf, measuring on one side 30 feet, on another 42 feet, and on a third 43½ feet, with height of 14 to 20 feet; from this latter starts the approach up and down, affording at the same time full room for circulation, being a spacious platform.

The trestle roadway proper is completed on a length of 208 feet, with flooring 12 feet wide of tamarac deals, British Columbia pine stringers and supports, 470 feet of 6 by 8-inch guard rails, and square posts, all carefully removed from old trestle and replaced on new; 21 cast-iron 1½ diameter posts screwed into the iron plates, and chain guards were placed on 216 feet of the inshore raised wharf; open-face cribwork, 24 by 20 feet by 12 feet high, was added to a large block at upper end of the trestle, at east end of side wharf, a temporary structure with old timbers (spruce) 80 by 20 feet, was fixed up between the latter crib and the brow of the cliff to provide communication with the public highway.

Altogether, 360 feet in length of flooring with new tamarac 12-foot deals were planked, besides 80 feet of temporary flooring.

As already stated, the whole of the old trestle was removed, a rather hard and long job, all the timbers being screw-bolted to a finish.

Nothing but cedar timber and British Columbia pine and tamarac was allowed in the permanent work, and wherever waterproof paint was needed it was profusely used for preservation of timber.

A very large percentage of the timber used in the old trestle, dating back from 1908-9, was too much decayed to be of any use in new work, being all spruce.

ST. JEAN PORT JOLI.

The village of St. Jean Port Joli, in the county of L'Islet, is situated on the south shore of the St. Lawrence river, 60 miles below Quebec.

Spring tides rise 21 feet; neaps, 13 feet.

The following repairs and improvements were performed on the wharf during the fiscal year ended 31st March, 1914.

At shore end, the whole depth of the wharf was torn down and rebuilt with new materials on a length of 73 feet; the width being 18 feet, and the mean depth 20 feet.

Furthermore, a length of 93 feet was rebuilt on a height of 10 feet.

Towards the outer end, the flooring and the stringers were renewed on a length of 110 feet.

Two hundred lineal feet of capping pieces were renewed.

The above work was performed by day labour during the months of July, August, and September.

The total expenditure was $4,293.97.

ST. JÉRÔME.

St. Jérôme, Chicoutimi county, is situated on the west side of Lake St. John; its population is about 2,000, mostly engaged in the farming industry; it is the most important place of the region.

During last fiscal year, the wharf was rebuilt at the shore end for a distance of 240 feet by 21 feet in width and four courses in height.

An addition to the head-block of 51 feet on one side and 70 feet on the other, 30 feet in width by an average height of 24 feet was built; it is a common round-timber structure, ballasted with stone, covered and sheathed with 3-inch deals; the end of cross-ties, which are projecting, are protected by hardwood fenders 10 by 10 inches square.

The work was carried out by day labour.

Amount expended, $5,599.19.

ST. JOHNS.

St. Johns, a delightfully situated town of Quebec, "chef-lieu" of the district of Iberville, on the Richelieu river, 27 miles from Montreal. It contains, besides the district and county buildings, churches for the Episcopalians, Methodists, and Roman Catholics, the head office of the St. Johns bank, branches of La Banque National, the Eastern Townships, and the Merchants Bank of Canada, twelve hotels, and about 100 stores. Population, 6,410.

In 1909 and 1910, when the department was dredging the river, it became necessary to build a drawbridge in the centre of the Jones traffic bridge, in order to allow the passage of the dredge and tugs below the site of Jones bridge.

To this drawbridge, repairs consisting of the renewal of two joists and flooring 70 feet by 20 by 3 inches, were effected.

Expenditure, $185.

ST. JOSEPH DE SOREL.

St. Joseph de Sorel, a post village and parish in Richelieu county, on the South Shore railway, and on the Richelieu and St. Lawrence rivers at the southwest end of Lake St. Peter, is the port of call for the steamers of the Richelieu and Ontario Navigation Co. The village contains the shops of the Department of Marine and Fisheries, for the construction and repair of the Government vessels and barges, employing 700 workmen. It contains also a Roman Catholic church, four stores, two saw and flour mills. Population of parish, 1,400.

The St. Joseph de Sorel public wharf consists of:—

1. A head-block, 72 feet 3 inches by 46 feet 2 inches, formed of a pile substructure up to 2½ feet above zero gauge, and a close-faced crib superstructure, the flooring of which stands 12½ feet above low-water level, outside face being in 12 feet of water.

2. A close-faced crib approach from 110 feet 4 inches to 119 feet long, and 18 feet wide.

3. A stone approach 74 by 18 feet with sides riprapped and sloped 1 in 1.

The work done on this wharf, during the months of October and November, consisted in building a shed 25 by 18 feet, including a waiting-room of 6 by 18 feet, on the north side of the head-block. In order to give easy access to this shed, a platform was built at the northwest intersection of the head-block and approach, forming a triangular floor space, 10 feet along the approach and 10 feet along the head-block; minor repairs were made to the flooring.

Total expenditure, $496.08.

ST. LAMBERT.

St. Lambert, a post village in Chambly-Verchères county, on the St. Lawrence river and on the G. T. R., 6 miles from Montreal, and connected with it by the Victoria bridge. St. Lambert is a railway junction of the G.T. Ry., I.C. Ry., Quebec, Montreal and Southern, and Central Vermont roads. It contains four churches (Methodist, Episcopal, Presbyterian and Roman Catholic), twelve stores, one lumber mill, one branch bank (Toronto), express and telegraph offices, together with an academy and Roman Catholic day school. Population, 1,500.

In 1901, the Department of Public Works constructed a protection dyke of 630 feet long, with a walk of 5 feet wide at the top.

In the months of August and September, the floor joists and entire flooring of this walk were removed by day labour at an expenditure of $877.12.

ST. MAJORIQUE.

St. Majorique is a large municipality on the north side of the northeast arm of Gaspé harbour at the mouth of the Dartmouth river, the terminus of all traffic over the maritime road, of the population along the south shore of the St. Lawrence river and the north shore of the outside Gaspé bay.

Approaches and roadway to the outlet of the Dartmouth river were started from the St. Majorique side towards the main channel in September, 1911.

Two hundred and ten feet of embankment, over fascines mattresses, were built to old river-bed. Two abutments of 20 feet by an average of 25 feet were built to receive wooden structure of 35-foot span, so as to allow continuation of embankment, and 300 feet of embankment was constructed on south side of the old channel, so as to reach a good foundation to resume work in the spring.

During the fiscal year 1912-13, the north embankment was extended to a point 1,525 feet from north shore towards main channel of Dartmouth river.

During the last fiscal year, the north embankment was extended 273 feet further and a portion of 80 feet long was built from medium H.W.L. towards bridge, and piles were driven on either side of main channel, a total length of some 950 feet.

Expenditure, $6,751.20.

ST. MARC.

Between St. Antoine and St. Marc.

The parishioners living on the west shore of the Richelieu river, about the villages of St. Antoine and St. Marc, had petitioned the Department of Public Works for financial aid in the construction of a wharf to be built on the river, and for which these parishioners have already spent a sum of $500.

In answer to a report, dated October 8, 1912, in which it is shown that the freight, consisting of hay and other agricultural products, justifies an expenditure, authority was granted to expend the sum of $250 in 1912.

During the month of October, this year, repairs were started on the damage caused by the ice-shove of last spring. As the piles, in the front face, were too distant from one another, it was necessary to sheet the inside horizontally in order to hold the filling.

The inside was stone filled and graded to the level of the public road.

This work was done by day labour at an expenditure of $352.96.

ST. MATHIAS.

St. Mathias, a post settlement in Rouville county, 3 miles from Richelieu, a station on the Central Vermont railway. It contains a Roman Catholic church, one store and one saw-mill. Population, 300; of parish, 800.

The wharf at St. Mathias consists of:—

1. A head-block, built of close-faced crib 76 by 25 feet and 9 feet above low water level.

2. A hand-laid stone riprap approach of 100 feet long by 20 feet wide.

The flooring, area of 1,900 square feet, was renewed completely with 3-inch plank, the riprap of the approach was repaired on the south side, and the road leading to the wharf was covered with gravel.

This work was performed by day labour at an expenditure of $434.18.

ST. MATHIEU.

Dredging.

Saint Mathieu, in the county of Rimouski, is situated four miles south of the station of St. Simon, and is an important parish with a population of about 1,500.

Farming and lumbering are the principal industries of the locality. There are two saw-mills, one of the best butter factories of the district and one butter box factory.

There are, at St. Mathieu, two lakes separated by a strip of marshy land; the upper or west lake is about 4 miles long, and the lower lake 1½ mile. The discharge of the two lakes is what is called River St. Simon, and passes by St. Fabien, near the station of the Intercolonial railway. By dredging between the two lakes and a portion of the river, it will permit of navigation to a depth of 3 feet sufficient for the driving of logs and timber.

During the fiscal year 1913-14, the strip of land between the two lakes was dredged for a length of 400 feet by a width of 30 feet, and an average depth of 4 feet, containing an area of 13,200 feet or 1,955 yards. The entrance of the river was also dredged for a length of 900 feet by a width of 35 feet, and an average depth of 4 feet, containing an area of 31,500 feet, or 4,666 cubic yards.

Amount expended, $4,804.89.

ST. MICHEL.

St. Michel, in the county of Bellechasse, lies on the south shore of the St. Lawrence, 15 miles below Quebec.

The site of the village is picturesque, and the place is frequented as a summer resort. The coasting steamer *Champion* calls twice a day, giving good facilities for the shipment of farm produce.

Spring tides rise 21 feet; neaps, 13 feet.

The public wharf at St. Michel is 1,100 feet long and 30 feet wide, with a head-block 50 by 40 feet.

The works done at St. Michel, during the last fiscal year, consisted of general repairs to the wharf.

Twenty-five thousand feet b.m. spruce deals 3 inches thick were used to renew the flooring, and 30,000 feet b.m. spruce deals 3 inches thick were used to renew the sheathing on both sides of the wharf. One hundred and thirty-five pieces of cedar, 14 feet in length and 8 by 10 inches, were also used to replace the stringers of the flooring. Twenty fenders, 18 feet long, 12 by 8 inches, and four mooring posts, 12 feet in length and 14 inches square, were replaced. The cap timbers, 10 by 12 inches, were renewed on a length of 1,500 feet.

The shed standing on the outer end of the wharf was sheathed on the northeast side, on a surface of 350 square feet, with 1½-inch spruce planks.

The slip of the outer end, which was damaged by the ice last winter, was thoroughly repaired. These works were carried on between the 5th of June and the 22nd of September.

The total expenditure amounted to $2,499.68.

SAINT OMER.

Saint Omer, in the county of Bonaventure, is situated on the north shore of Baie des Chaleurs, 42 miles east of Matapedia.

It is a prosperous parish with a population mostly composed of farmers. A passenger boat plies twice a week between St. Omer and Dalhousie.

During the fiscal year 1913-14, the planking and the sheathing of the wharf were renewed at many places.

Amount expended, $139.89.

ST. OURS.

St. Ours, an incorporated town in Richelieu county, 2 miles from St. Roch station, on the shore line division of the Quebec, Montreal and Southern railway. It

contains one Roman Catholic church, ten stores, one hotel, one wagon factory, one cheese factory, one carriage and plough factory, and one saw-mill. Population, 900.

The wharf at St. Ours was built in 1910 and consists of a pile construction 151 feet 9 inches in length, divided into an ice-breaker 19 feet 3 inches, a low level portion 109 feet 3 inches, and a high level wharf of 23 feet 3 inches. This wharf was built along the shore line with 8 feet of water all along its outside face, and filled to a level along the inside face.

During this fiscal year, a freight shed 50 feet long by 20 feet wide, with a 6-inch concrete floor, was built by contract entered into between the Department and Gouin & Papillon for the sum of $2,000.

Work was completed and full amount awarded.

Expenditure, $2,000.

ST. PIÈRRE LES BECQUETS.

St. Pièrre les Becquets, a post village and parish in Nicolet county, on the St. Lawrence river, 4 miles from Batiscan, on the Canadian Pacific railway, and 19 miles east of Three Rivers. It contains one Roman Catholic church, ten stores, two temperance hotels, one carding-mill, two saw-mills, four grist-mills, one tomato canning factory, besides a large convent with 70 pupils, also express and telegraph offices. Population of parish is 1,900.

The wharf, built at the foot of the hill leading to the river, consists of:—

A pile head-block 82 feet 6 inches long and 41 feet wide at top, with an ice-breaker inclined 1½ in 1; a pile approach 60 feet long and 20 wide, with an ice-breaker all along; a stone embankment 85 feet long and 20 wide, with both sides riprapped 1½ in 1.

At the last session of Parliament, the sum of $900 was voted to repair the wharf. On June 10, 1913, authority was received to expend this sum by day labour.

Work was commenced on August 5 and completed on September 12, 1913, and consisted in repairing a part of the flooring, a part of the ice-breaker, regrading the approach, and repairing the stone rip-rap on both sides of the approach.

In the execution of the above works, some 13 toises of stone and 12,167 feet b.m. of lumber and timber were used.

During the fiscal year 1913-14, the expenditure was $899.04.

Dredging.

The object of the dredging is to provide a channel from the wharf, which is at the foot of the bank, to the main channel through a shoal about 3,000 feet wide.

Dredging was performed by departmental dredge *No. 23*, attended by tug *Fashion*; work was commenced on August 11 and continued until November 22, 1913, and consisted in the removal of 51,891 cubic yards, scow measurement, or 25,794 cubic yards, place measurement, as found by survey after the work was completed.

Average depth of cut, 7 feet 5 inches; width of cut, 4 feet 5 inches; and the finished depth is 10 feet below water level. The material dredged is hard-pan, clay, sand, and boulders.

ST. ROCH.

St. Roch de Richelieu is a post village in Richelieu county, on the Richelieu river, opposite St. Ours, and some 11 miles upstream or south of Sorel. The railway station is over two miles west on the Quebec, Montreal and Southern railway. It contains one Roman Catholic church, six stores, carriage, brick, sash and door factory, and cheese factories, grist and saw-mills. Population, 1,045.

From June 2 to July 16, 1913, departmental dredge *No. 121*, or *St. Louis*, completed the 8-foot basin started the year preceding, opposite the brick factory. Some 12,515 cubic yards, scow measurement, of clay were removed and dumped ½ mile away. Hours of actual dredging, 328½; width of cuts, 18 to 30 feet; face, 3 to 12 feet; total distance advanced, 1,751 feet.

This basin, over 500 feet long and 100 wide, greatly improves the local facilities.

ST. ROCH DES AULNAIES.

St. Roch des Aulnaies is situated on the south shore of the St. Lawrence, in the county of l'Islet, 70 miles below Quebec.

Between the 5th of June and the 6th of September, of the last fiscal year, the following works were performed on the wharf at St. Roch des Aulnaies:—

The outer part of the flooring was renewed, and some 13,500 feet b.m. of spruce deals 3 inches thick were used.

Four concrete mooring posts were also added where required. As a protection for vehicles, a concrete railing 12 inches square was placed on both sides of the stone approach, on a length of 230 feet.

The roadway of this approach was also repaired and improved by placing a layer of concrete, 4 inches in thickness, for which about 575 bags of cement were used. The road leading to the wharf was also repaired.

The amount expended was $1,499.74.

ST. ROMUALD.

St. Romuald is situated in the county of Lévis, on the south shore of the River St. Lawrence, about 3 miles above Quebec.

During the past season, a sum of $1,498.95 was expended in the removal of boulders from near the wharf at St. Romuald.

ST. TIMOTHEE.

St. Timothee, a post village in Beauharnois county, on the St. Lawrence river, and on the St. Lawrence & Adirondack R.R., 5½ miles from Valleyfield. Population of parish, 2,104.

The departmental wharf had been constructed partly in 1889 and partly in 1899. It consists of:—

1. An approach 237 feet long, 20 feet wide, built of stone and earth, covered with gravel.

2. A crib head-block 100 by 24 feet sunk in 7 feet at low water.

3. An outside extension of 100 feet by 44 feet built on three cribs 25 feet by 20 feet each, 20 feet from each other and with outside face 44 feet from the inner block.

Urgent repairs to the flooring were made in September, pending the renewal of joists and stringers together with a complete new floor contemplated for next year.

The work was done by day labour at an expenditure of $50.

ST. VALIER.

The village of St. Valier, in the county of Bellechasse, is on the south shore of the St. Lawrence river, 21 miles below Quebec.

During the last fiscal year, heavy repairs were made to the wharf at St. Valier, which consisted of the following:—

Some 1,990 lineal feet of longitudinals and cross ties were renewed with spruce of 12 inches diameter; 12,900 feet b.m. spruce 12 inches square were used in replac-

ing the face timbers which were worn out; the cap pieces were renewed and 3,600 feet b.m. of spruce 10 by 12 inches were used for same; the flooring was also repaired on a surface of 4,200 square feet, with 3-inch spruce deals; some 7,207 feet of hardwood were used for the sheathing; ballast floor was replaced on a length of 540 lineal feet; four mooring posts and two ladders were renewed and replaced in a more convenient place.

The expenditure was $2,199.92.

STE. VICTOIRE.

Ste. Victoire, a post village and parish in Richelieu county, 6 miles from St. Robert station, and 8 miles from Sorel. It contains a Roman Catholic church, 4 stores and two flour and saw-mills. Population, 1,532.

A contract for $6,996 for the construction of a wharf was entered into by the Department with Gouin & Papillon, of St. Ours, on the 3rd of April last. This wharf consists of:—

1. A stone-filled crib head-block 44 by 30 by 17 feet high, including ice-breaker, sunk in 8 feet at low water.

2. A pile head-block 50 by 20 by 12 feet high to be placed downstream and adjacent to the head-block.

3. A stone approach, slopes 1 in 1 on each side, 75 by 32 feet at the top.

4. A plot of land 100 feet by 50 on shore and a roadway 247 feet by 30 feet leading thereto from the public highway.

The contract was completed to the satisfaction of the Department, and a final estimate was awarded the contractors for the full amount.

Expenditure, $7,233, including inspector's salary.

ST. ZOTIQUE.

St. Zotique, a post village and parish in Soulanges county, on the St. Lawrence, and a station on the G. T. Ry., 2 miles from Coteau Junction. The village contains two stores, two hotels, and one telegraph office. Population, 400; of parish, 1,000.

The wharf consists of:—

(*a*) A head-block of close-face crib 132 feet long, 24 feet wide, sunk in 9 feet of water at low level.

(*b*) An approach of 1,150 feet long by 13 feet wide built on small piers of crib substructure and concrete superstructure, placed at intervals of 20 feet and spanned with 42 lbs. 15-inch I-beams supporting the flooring.

Urgent repairs to the floor were made during the summer pending the expenditure of a large sum, next year, for concrete reconstruction of the head-block.

Done by day labour at an expenditure of $147.25.

SAGUENAY RIVER.

The dredging in the Saguenay river was done by the Continental Dredging Co., of Montreal, with the dredge *Algonquin*.

The work started on the 5th of June and continued until the 4th July.

The work consisted in the dredging of lumps and horsebacks in the Chicoutimi range. Five cuts, 30 feet in width and 4,500 feet in length, were cleaned up to a depth of 18 feet below low water spring tides; 40,306 cubic yards, scow measurement, of clay, with little sand and few boulders were dredged and scowed away. The price paid was 32½ cents.

The object of the work is to allow steamers of heavy draft to call at any high tide at the Chicoutimi wharf.

SAULT AU MOUTON.

Sault au Mouton is part of the parish of Mille Vaches, situated on the north shore of River St. Lawrence, some 39 miles from Tadoussac. There is a saw-mill belonging to the Iberville Lumber Co., which employs about 75 people; it is one of the best lumbering places of the north shore.

During last fiscal year, in order to facilitate the approach to the Iberville Lumber Co.'s wharf, the sum of $587.75 was expended in the removal of boulders situated in the vicinity.

The work was carried out by day labour.

SOREL.

Sorel, an incorporated city, capital of Richelieu county and district, on the right bank of the River Richelieu at the mouth of Lake St. Peter, on the Quebec-Montreal and Southern Ry., 52 miles northeast of Montreal, 33 miles from St. Hilaire. Sorel contains water, electric and gas works, a court of justice, a prison, a fine market, manufactories of engines, boilers, mill machinery, saws, stoves, ploughs, agricultural implements, grates for steam boilers, doors, sashes, leather, bricks, three printing offices, English and French newspapers, three branch banks, twelve hotels, Roman Catholic and Anglican churches, one fine Roman Catholic college, a Protestant elementary school, a convent, a hospital, an orphanage, telegraph, telephone and express offices, and about fifty stores. Population, 9,000.

High Level Wharf.

Extensive repairs were undertaken by the Department, on this wharf, during the summer. The cap piece, on the St. Lawrence river side, 600 feet in length, was renewed in British Columbia fir, one foot of the vertical sheeting 10 inches thick was cut out and replaced by a longitudinal in B.C. fir 600 feet long, and the whole was covered with steel plates ½-inch thick by 4 feet by 600 feet long. The angle corner, formed by the St. Lawrence and Richelieu rivers, was repaired and strengthened. The wharf was refilled to a depth of 6 and 7 feet along the Richelieu and St. Lawrence rivers. Five cast iron mooring posts were set in cement 4 feet by 4 by 8 feet, and the flooring was repaired generally.

A shed for storing tools, ropes and general material belonging to this Department, 30 feet long by 20 feet wide, with a flat corrugated roof, was built at a cost of $522.

This work was done by day labour at a total expenditure of $6,089.13.

STRATFORD.

Stratford Centre, a post village in Wolfe county, on the Maskinonge river, 6½ miles from Garthby station on the Quebec Central railway, with port on Lake Aylmer. It is 11 miles from Lake Weedon and 14 miles from D'Israeli. It has one Roman Catholic church, five stores, one hotel, and five saw-mills. Population, about 800.

In 1911, a landing pier was built under contract in Lake Aylmer at Stratford. It consists of:—

1. In a close-faced and stone-filled crib head-block 40 by 40 feet, standing 10½ feet high in 4½ feet of water at ordinary low level;

2. In a crib and span approach 308 feet long and 16 wide, composed of 11 close-faced and stone-filled crib piers 8 by 16 feet, and 11 spans 20 by 16 feet;

3. A stone approach 194 feet long, 18 feet wide at top with side rip-rapped and sloped 1 in 1.

On June 8, 1913, authority was received to expend the sum of $220 in repairing the wharf by day labour.

Work was commenced on June 23, 1913, and completed on the 27th, and consisted in renewing 113 feet long of the coping of the wharf, renewing one floor stringer 18 feet long and 300 square feet of flooring which had been broken by the ice, and in grading with broken stone the stone and earth approach.

In the execution of the above work, 1,803 feet of lumber and timber and 50 cubic yards of broken stone were used.

During the fiscal year 1913-14, the expenditure was $217.57.

TADOUSSAC.

Tadoussac, the shire-town of the county of Saguenay, is situated at the mouth of River Saguenay; it is a well-known summer resort.

During last fiscal year, the sum of $1,899 was expended in the construction of a freight shed 36½ feet by 24½ feet, and a waiting-room; flooring was also placed in front of the new shed on an area of 59 feet by 36 feet.

The work was carried out by day labour.

THREE RIVERS.

The city of Three Rivers, on the northern bank of the St. Lawrence river, at the mouth of the River St. Maurice, 82 miles below Montreal and 78 miles above Quebec. Population, 22,000.

Since 1882, several wharfs were built, having over 6,000 feet of frontage with a depth of 14 to 30 feet at low water level.

At the Quay Bureau, built in deep water in 1902-7, a shoal formed along the wharf by an eddy from the new coal dock.

Dredging was performed by departmental dredge *Ottawa* from October 13 to 25, during which time 7,280 cubic yards of sand were removed; and by dredge *Progress,* the work was resumed on the 27th October and completed November 4th, during which time 5,000 cubic yards of sand, brick, and pig-iron were removed.

Shelter Basin.

The space between the new coal dock and Quay Bureau is contemplated for the erection of a shelter basin.

A wreck of a small pier within the basin, being an impediment to navigation, has been removed by the departmental dredges *Ottawa* and *International,* to a depth of 16 feet below low water level; 4,109 cubic yards of sand, logs, and stone were removed.

Dock.

A timber dock, an ice-breaker, a railway embankment and earth filling are located in the western part of the harbour of Three Rivers, opposite the Wind Mill Point. The timber dock is 640 feet long; the ice-breaker, 115 feet long, and embankment from the back of timber dock and ice-breaker up to the high-water line, such embankment giving an area of about 600,000 square feet.

These works are performed by contracts. The contract, under date of May 18, 1910, allows the construction of a timber dock measuring 500 feet long; of an ice-breaker 115 feet long; of an embankment, measuring 100 feet width at top, from the back of timber dock and along the ice-breaker, which extends from the northwest extremity of ice-breaker up to the St. Lawrence high-water mark, and of a stone rip-rap on the west side of embankment on a distance of 400 feet from ice-breaker.

On January 24, 1912, authority was given to extend the timber dock towards the northeast by the construction of a new crib of 140 feet long, making the total length 640 feet.

These works are performed by Messrs. Collins and Giroux, the contractors. The cost of original contract is $142,900; $25,493.03 for the extension of 140 feet, and $300 for stone rip-rap at the southwest angle of timber deck, making a total of $168,693.03.

On March 31, 1914, all the wood works at timber dock were completed, leaving only the filling at back of wharf and along the ice-breaker, which represent 25,433 cubic yards of earth at 24 cents per yard, $6,104. The cost of these works during fiscal year ending March 31, 1914, is $23,963.20.

On March 18, 1912, the same contractors, Messrs. Collins and Giroux, entered into an agreement for additional filling on a certain area from the wharf under contract up to the line marking the St. Lawrence high water, and an embankment measuring 20 feet wide on top for railway approach, with stone rip-rap on east side of the approach.

This contract, dated March 18, 1912, covered approximately 160,000 cubic yards of earth filling, at 24 cents per cubic yard, and $1.50 per cubic yard for stone riprap.

On August 8, 1912, the same contractors, Messrs. Collins and Giroux, were authorized to make up an additional filling of about 19,000 cubic yards at the net price of $4.560, and by an Order in Council under date of August 2, 1913, they were authorized to fill up all the space not mentioned in the contract of 18th March and the extra of August the 8th, 1912, at the cost of 24 cents per cubic yard, covering an amount of about $21,360; these two extras of August the 8th, 1912, and August 2nd, 1913, with the contract No. 8776, covers all the space between the ice-breaker, the railway approach, the timber dock and the St. Lawrence high water mark, forming an area of about 600,000 square feet.

This earth filling having been started during the summer of 1912, but little work was done during that season; was resumed on June 24, 1913, and continued, nearly without interruption until October last, when an accident to the pump occurred and the embankment works were suspended, to be resumed and completed in the summer of 1914.

The embankment made during the fiscal year of 1913-14 covers 174,033 cubic yards, at 24 cents per yard, making $41,667.92, and 5,039 cubic yards of stone riprap at railway embankment at $1.50 per yard, making $7,558.50.

The total amount of money disbursed during fiscal year 1913-14 is $77,303.60, as follows:—

On construction as per contract No. 7784 and extension of 140 feet to timber dock	$23,963.20
On earth filling as per contract No. 8776, stone riprap at railway embankment and extras	49,226.42
On staff and working expenses	4,113.98
Total	$77,303.60

THURSO.

Thurso, population 700, in the County of Labelle, is a station of the C. P. Ry. 30 miles east of Ottawa, situated on the north shore of the Ottawa river.

Parliament, in 1913, appropriated $12,000. for a public wharf.

On the 16th of October, 1913, a wharf property was purchased by the Department from Mr. S. Campbell for the sum of $1,070. This property was required as a site for a new wharf.

Contract plans and specifications were prepared for a structure of open-face crib-work extending out 448 feet, drawing 9 feet at the landing face, and built to a height of 16 feet above L.W.L. The landing-head, 112 by 48 feet, to have three landing stages protected by ice-breaker. The high-level approach to be formed of eleven cribs and eleven spans each 16 feet square; and extending 32 feet to form the roof of low-level freight shed. The low-level approach, 16 to 24 feet wide, 220 feet long, to be built of stone riprap, earth filling, and graded to the public highway, a total distance of 400 feet. A high-level freight shed is located in the angle of landing-head and approach, and a two-line handrailing is provided where required.

On the 7th of March, 1914, the tender of Messrs. Alf. Bélanger & Co., of Papineauville, P.Q., was accepted for the construction of said wharf at a unit price quotation entailing an approximate expenditure of $12,178.10.

On the 14th of March, the layout for the construction was given, and on the 23rd the contractors started to build the substructure of part of landing-head extending the old wharf. This substructure consists of two open-face crib-work blocks of a trapezoidal form, having the following dimensions: East block, 50 feet long, 24 and 13 feet wide and 11 feet high; west block, 50 feet long, 13 and 4 feet wide and 11 feet high. These blocks were completed, fully ballasted and sunk, in the last week of March.

Expenditure to March 31st:—

Estimate to contractors	$1,017 47
Inspection	24 00
Wharf property	1,070 00
Legal costs, advertising and printing	242 97
Total	$2,354 44

Dredging.

The departmental dredge *Nipissing* worked on the Ottawa river (July 28-31) preparing a basin in front of the proposed new wharf. Two cuts 140 feet and 287 feet long by 23 and 20 feet wide were dredged to a grade depth of 9 feet.

A total of 1,443 yards of sand and clay (scow measure) were removed and spoiled in deep water half a mile distant.

TROIS PISTOLES.

(South Pier.)

Trois Pistoles, in the county of Temiscouta, is an important village on the Intercolonial railway, 25 miles below River du Loup. The land in the vicinity is fertile and the place is flourishing. It is somewhat frequented as a summer resort. Along the River Trois Pistoles there are large saw and pulp mills.

The work done at Trois Pistoles during the fiscal year ended the 31st of March, consisted in the following:—

The approach to the south pier, which was built last year by taking advantage of a pile of stone, on top of which was placed two rows of face timbers, stringers and flooring, was damaged to such an extent during the very severe storm in the fall of 1912, that it became expedient to tear down the whole work.

To ensure permanency, the approach was rebuilt with cribwork filled with stone, from the hard bottom to top, a mean height of 10 feet, the length being 183 feet and the width 18 feet.

As the roadway was narrow, railguards, 2½ feet high, were placed on both sides. The south pier, commenced last year, was completed by adding about 100 toises of stone, and placing the stringers, flooring and capping pieces; the length of the wharf is 200 feet and the width 22 feet. To provide more floor space, an addition 50 by 40 by 16 feet high was constructed. A building 24 by 14 feet was erected on the pier, having two partitions to provide freight shed and waiting room. Some hand dredging was done on the northeast side of the wharf to remove sand. Rocks were blasted to improve the entrance to the harbour. Eight mooring posts were replaced on the old wharf, and the flooring renewed on a surface of 1,204 square feet. These works were performed by day labour, between the 5th of May and the 1st of November.

The total expenditure amounted to $9,992.53.

Ice Breaker.

The breakwater, built some years ago, across the entrance of the harbour, being much exposed to the pressure of ice and having only a width of 18 feet at the base, was in danger of being upset and destroyed. In order to counteract the action of the ice from the one side only, it was found expedient to extend the breakwater at both ends. During the fiscal year of 1913, the construction of two cribs 100 feet in length, and 20 feet wide at the base was begun. Owing to the want of appropriation, the work could not be completed. During the year ended 31st of March, 1914, the work was completed by the addition of a mean height of 4 feet, to these cribs, filling the whole with stone ballast to top of work and sheathing the outside faces with spruce, 5 inches thick, extending from top to bottom of the cribs.

The old work was also raised and levelled on a height of 1½ feet and a length of 300 feet.

Heavy stone were also placed along the outer face of the new cribs to prevent scouring and washing out of the bottom. Scattered boulders, interfering with the free access to the harbour, were also blasted and removed.

The work was performed by day labour, between the 23rd of June and the 7th of October.

The total expenditure amounted to $2,500.

VALIN-CARIBOU.

River Valin-Caribou is a portion of the parish of St. Anne, contains a cheese factory and saw-mill, situated on the north shore of River Saguenay, some three miles below Chicoutimi; a ferry boat plys there twice a day.

During the last fiscal year, the sum of $743.25 was expended to purchase the site for a wharf, and timbers for the construction of the said wharf.

VALLEYFIELD.

Valleyfield, an incorporated town, port of entry, port of call for the St. Lawrence river steamers, in Beauharnois county, on the south of the River St. Lawrence, at the head of the Beauharnois canal, and at the foot of Lake St. Francis. It is a station on the N.Y.C., and on the G.T.R. (Ottawa and Swanton division), 9 miles from St. Louis and 5 miles from Coteau Junction (Soulanges county), 50 miles southwest of Montreal. Population, 10,000.

In 1912, a close-faced crib of 200 feet long by 15 feet wide by 17 feet high, was constructed on the bay and placed 15 feet from and parallel to the shore.

The work performed during this summer consisted in the construction of an extension at the east end of the wharf, 50 feet long by 15 feet wide by 17 feet high, and stone-filled.

An open shed, 30 feet long by 20 feet wide, was also constructed, to be used both for freight and passengers, at a cost of $620.

This work was completed in March, and was performed by day labour, at a total expenditure of $2,372.20.

VERCHÈRES.

Verchères, a post village in Verchères county, on the St. Lawrence river, and on the Quebec, Montreal & Southern railway, 21 miles from Montreal. It contains one Roman Catholic church, twelve stores, one hotel, one branch bank, two saw-mills, two wood and iron factories, one college, one convent, five flat boat works, also telegraph and express offices. Population, 750.

The Verchères public wharf, built in 1903-5, consisted of:—

1. A pile head-block 97½ by 41 feet, exclusive of ice-breaker, incline 1½ in 1 and standing 21 feet 5 inches high in 9 feet 5 inches of water at low level;

2. A pile approach 224 by 20 feet, with ice-breaker all along;

3. A stone approach 133 by 20 feet with sides rip-rapped and sloped 1 in 1;

4. A movable shed of 50 by 20 feet.

The ice-shove of last spring, carried out 90 feet of the pile approach, raised the ice-breaker along the approach, and damaged the head-block. A new approach was built with 90 toise of stone, hand-laid rip-rap, and filled inside with sand, making a stone approach of 223 feet long. The ice-breaker, along the remainder of the approach, was repaired, together with the flooring and walings in the head-block.

This work was performed by day labour at an expenditure of $1,642.13.

VERDUN.

Verdun, an incorporated village in Jacques-Cartier county, lying to the south-west of the city of Montreal, and separated from it by the tail race of the Montreal waterworks, and 1 mile from St. Paul station on the G.T.R. It contains four churches (Roman Catholic, Anglican, Presbyterian and Methodist), a number of stores, a large laundry, ice-house, one hotel, one Protestant hospital for the insane, one branch bank and a large seminary. A ferry runs to La Tortue, on the south side of the St. Lawrence, and there is a good electric car service to Montreal. Population, 18,000.

The new wharf, at Verdun, constructed in 1912, consists of:—

1. A close-faced and stone-filled crib head-block, 90 feet long, 40 feet wide, 13 feet high, sunk in 8 feet at low water level;

2. A stone approach 90 feet wide and 30 feet long, at top, rip-rapped and sloped 1 in 1;

3. A roadway 25 feet wide, raising 1 in 10 to the public road with the river slope, rip-rapped 1 in 1.

From the 1st of June to 30th August, the head-block was vertically sheathed on the outside with 3-inch plank, and the inside filled with stone covered with shale procured from the embankment. Improvements have also been made to the roadway leading to the wharf.

This work was performed by day labour at an expenditure of $2,565.67.

VICTORIA BAY.

Victoria bay wharf is situated at the head of Victoria bay, Compton county, on the west side of Lake Megantic, 7 miles by road and 3 miles by water from the town of Megantic, on the Canadian Pacific railway. The wharf is used by the people of Harsboro village and vicinity, who travel by water to Lake Megantic.

On July 8, 1913, authority was received to expend the sum of $310 for repair- and improvements to the wharf by day labour.

Work was commenced on September 3 and carried on intermittingly until October 30, 1913, and consisted in closing in a part of the existing shelter in order to protect freight from rain storms and to be used also as a waiting-room; in rip-rapping the north side of the approach, and grading the approach with gravel.

In the execution of the above works, 2,600 feet b.m. of lumber, 83 pounds of iron, and 15 loads of stone and gravel were used.

During the fiscal year 1913-14, the expenditure was $306.12.

VILLE MARIE.

Ville Marie, the seat of the judicial district of Timiskaming, is a village in Pontiac county with a population of 850, and located on the east shore of Lake Timiskaming.

Old Wharf.

During the past season of navigation, Mr. Jas. McGregor was employed to repair bad spots in flooring of old wharf when necessary. Work, for which $250 was authorized, commenced April 21st and continued intermittently until the end of November.

New Dock.

On March 28, 1913, a contract was let to Mr. R. Brewder for the construction of a pilework dock for the sum of $17,971.93. Work was begun April 7th, but progressed slowly during the summer, and was discontinued November 6th, on account of the scarcity of timber in the locality at that time. Work was resumed early in January, and was 70 per cent completed on the 31st March. An extra of $400.62 was authorized May 15, 1913, to provide for an additional length of 24 lineal feet, to further reduce the natural grade of the hill roadway.

The pilework dock landing head measures 145 feet square; drawing 10 feet at minimum R.W.S. (elev. 583·3), and stands 8½ above this level; the approach, 32 feet wide, 408 feet long, is located in centre of St. Anne Street,, and is built to break the short steep grade; 3-line W.I. pipe handrailing is placed on both sides of the approach, and a freight shed 48 by 96 feet, 16-foot walls, with several slips and fenders, complete the landing head.

Expenditure to March, 31:—

Estimates to contractor	$14,632 14
Inspection	680 58
Repairs to old wharf	257 00
Total	$15,569 81

Dredging.

The departmental dredge *Queen* worked at Ville Marie, on Lake Timiskaming (August 4-October 27), making a channel and turning basin leading up to new wharf at this place, consisting of two cuts 800 feet long by 30 wide, six cuts 300 feet long by about 100 wide, and a basin in front of the wharf 300 feet long by 300 wide at wharf face, to 100 feet at outside, dredged to grade elevation 573·5.

Fifteen thousand nine hundred and ten yards of clay (scow measure) were removed and spoiled in deep water two miles distant. From surveys on the ice in 1912 and 1914, the corresponding quantity, place measure, is 15,154 yards, and the expansion factor is, therefore, only 5 per cent. Six hundred and seventy yards of this material was excavated below sub-grade.

YAMASKA RIVER.

The river Yamaska rises in the county of Brome, and after a course of over 90 miles falls into the St. Lawrence river at the head of Lake St. Peter. By the construction of a dam and lock, built in 1882, about 2 miles below the village of St. Michel d'Yamaska, the river was rendered navigable on a distance of about 20 miles from the mouth. The channel has, of course, to be maintained by occasional dredging.

Dredging was performed by departmental dredge *No. 106*, attended by tug *Mina G.*; work was commenced on May 29th and was carried on until July 3, 1913, and consisted in the removal of 10,244 cubic yards, scow measurement, in making one cut 30 feet wide and 11,070 feet long.

Average depth of cut, 3 feet 6 inches.

Finished depth of channel, 8 feet at low water, and the material dredged is sand and clay.

PROVINCE OF ONTARIO.

ANCONA.

Ancona, county of Victoria, is situated on the south shore of Sturgeon lake some 4½ miles from Bobcaygeon and is a station on the C. P. Ry. It lies in a well settled, thriving farming community and is a summer resort patronized by many people.

Authority was given to expend the sum of $3,800 in the construction of a wharf by day labour.

Work was commenced 1st August and completed 15th October, and consisted in the construction of a wharf having cribwork substructure and concrete superstructure 18 feet wide on top and 60 feet long with about 7 feet of water at the outer end, and being connected to the shore by a heavily built stone approach 50 feet long by 60 feet wide, at the shore and 24 feet wide where it adjoins the wharf.

Total expenditure for fiscal year, 1913-14, $3,241.57.

ARMITAGE LANDING.

Armitage Landing, in Carleton county, is a landing on the south shore of the Ottawa river, 3 miles from Dunrobin post office and 1½ miles from Breckenridge, on the Waltham branch, C. P. Ry.

Parliament at its last session voted an amount of $8,700 for the construction of a wharf. During the year, contract plans and specifications were prepared and tenders called for. The contract was awarded, March 20th, to Messrs. McCool & Moffatt for the approximate sum of $10,033.50, and up to the end of March no work was done.

The proposed structure, of open-face cribwork and stone riprap approach, is to extend out 456 feet, drawing 8 feet at the landing face, and built 8·5 feet above the minimum low water level—elevation 189. The landing-head, 36 by 100 feet, including ice-breaker, is to consist of three cribwork blocks 16 feet apart and two platforms. The cribwork approach is to be 308 feet long and the stone riprap, earth filled, approach 112 feet long, all 16 feet wide. A two-line handrailing along both sides of approach, a small freight shed, 16 by 24 feet, located on the landing-head, and two ice-breakers, 16 feet square, located upstream, to protect the approach cribs, are to be provided on the finished structure.

ARNPRIOR.

Arnprior, the principal town in South Renfrew, is located at the mouth of the Madawaska on the south shore of Chat lake, an expansion of the Ottawa river, has a population of about 5,000.

Corner fenders on the public wharf having been broken from the reinforced concrete structure, by the impact of heavy steamboats, it became necessary in restoring these to improve all fenders and add waling. The concrete backing was placed for two new fenders during last season at a cost of $22.87.

From March 9th to 21st the old red pine fenders were replaced by six new 9 by 12 inch rock elm fenders, 12 feet long, and wale pieces of same size were inserted between these fenders. In the upper row, wale pieces were secured to concrete members with 1 by 22-inch m.b., while in the lower row they were secured with shackles of 1-inch round iron bar.

Fenders and walings also received one coat of paint.

Expenditure to March 31, $192.57.

ASH RAPIDS.

The Ash rapids, District of Thunder Bay and Rainy river, are situated 22 miles southwest of the town of Kenora, and connect the Lake of the Woods with Shoal lake. The difference in elevation between these two lakes depends largely on the direction of the wind.

A lock and dam was proposed at Ash rapids to aid navigation and to assist in controlling the lake levels.

An examination was made June 7th and a report and estimate submitted on June 12, 1913.

As the control of these waters comes under the jurisdiction of the International Waterways Commission, it was recommended that no steps be taken in connection with the above work until the height at which the Lake of the Woods is to be maintained was settled.

BARRIE.

Barrie, county of Simcoe, is situated on Kempenfeldt bay, an arm of Lake Simcoe, 66 miles northwest from Toronto. Population, 6,500.

Authority was given to expend the sum of $100 in wharf repairs by day labour.

Work was carried on from the 15th to 22nd August, and consisted in the renewal of the decking where required and such general repairs to the stringers as were necessary.

Total expenditure for fiscal year 1913-14, $98.

BARRY'S BAY.

Barry's Bay, in South Renfrew, a village on the G. T. Ry., is the terminus of navigation on the Madawaska river, and has a population of 300.

The work of extending and improving the public wharf built on the arm of the Madawaska river, some nine years ago, was begun August 19 and discontinued November 11, to be completed in the early spring.

A portion of the cribwork 25 by 28 feet at east end of wharf was raised four feet six inches and the remainder raised one foot six inches and re-floored; the rip-rap and earth approach was altered accordingly for a two level landing. A cribwork extension 12 feet wide was built along face and end of wharf, 112 and 25·1 feet, making total width of landing head 37 feet. A freight shed 16 by 16 feet was built

on wharf, accessible from both levels, which now stand 6 feet and 9 feet, respectively, above low water, with minimum depth of 4½ feet along the landing face 112 feet long. A culvert was built to drain the roadway at base of hill, across the approach.

Expenditure to March 31:—

Labour	$1,840 34
Materials	1,130 87
Total	$2,971 21

BEAUMARIS.

Beaumaris, district of Muskoka, is a summer resort, population about 1,000, situated on Tondren island, Lake Muskoka, about 13 miles from Gravenhurst. It is the central distributing point for the Muskoka lakes; from 18 to 20 boats call daily during the season. There is a large summer hotel, "The Beaumaris", accommodating about 300 guests, besides many summer cottages.

On June 16th, 1911, authority was given to expend the sum of $20,000 in the construction of a new wharf, for which a contract was awarded to the Union Construction Company of Ottawa for the sum of $23,994.

Work was commenced in January, 1912, and completed September 12, 1913. The completed work consists of the building of a stone approach to the wharf 82 feet long by 20 feet wide, also 1 crib 50 feet long by 20 feet wide, and 2 cribs each 70 feet long by 30 feet wide, all built of wood, filled with stone below low water level, with a concrete superstructure. The outer 70 foot crib rests on a pile foundation.

On February 2, 1912, authority was given to provide a small boat landing, for which the contractors were to be paid the sum of $200.

On March 8, 1912, authority was given to expend the sum of $300 for certain alterations in the method of placing the caps on the piles.

On August 20, 1913, authority was given to expend the sum of $400 for certain alteration in the method of constructing the superstructure of the outer 70-foot crib by using I-beams, which involved additional material and labour.

On April 19, 1913, a sum of $100 was authorized to be expended in repairs to the old wharf; of this sum only $37.82 was expended.

On November 10, 1913, a sum of $3,470 was authorized to be expended on the erection of a warehouse on the new wharf. This work was carried out during the winter months and the building completed on March 20, 1914, except the labour of painting, the erection of small shed for lighting plant and some benches for waiting-room and shelter calling for a further expenditure of about $200. The work as completed up to March 20, 1914, cost $2,138.39.

On February 20, 1914, authority was given to expend $425 on the removal of portion of the old wharf and to make repairs on remaining portion of same. This work was carried out and completed as far as it was considered necessary on March 21, 1914, at a cost of $191.84.

The total expenditures being:—

Union Construction Co., new wharf	$21,563 10
Inspection	355 08
Repairs to old wharf	37 82
Warehouse and shelter, including inspection	2,138 39
Removing end of old wharf and repairs	191 84
	$24,286 23
Extra amount allowed for stone filling under crib No. 3, for dredging berth for same	1,245 00
Total	$25,531 23

BEAVERTON.

Beaverton, county of Ontario, is situated on the easterly shore of Lake Simcoe, 72 miles north of Toronto and is a station on the G. T. Ry and C. N. Ry. Population, 2,500. It is a popular summer resort and is located in a good agricultural district.

Authority was given to expend the sum of $44,000 in harbour improvements, and on the 18th November, 1912, a contract was awarded to Mr. David Conroy for this work for the sum of $41,874.

Work was commenced 21st July and carried on till 30th November, when it was suspended and resumed again on the 1st January and is still in progress.

The work done to date consists in the renewal in concrete of the existing breakwater, having a length of 792 feet with a width at the base of 6 feet and at the top of 4 feet.

On the north side of the channel a line of close sheet piling, constituting a breakwater, 550 feet in length has been driven, also anchor piles to the number of 57 have been driven and the upper waling on the main piling is in place and the deadmen timbers on the anchor piling is secured. The dredging, lower waling and tension rods have yet to be completed.

A hand railing and life chain placed on the breakwater; the hand railing, 847 feet in length has been provided and placed in position by Messrs. Cameron & Cameron of Beaverton.

Total expenditure for fiscal year, 1913-14, $13,442.33.

BELLE EWART.

Belle Ewart, county of Simcoe, is situated on Lake Simcoe, on the northwest shore of Cook's bay. It is a popular summer resort and has a transient population. It is located in a fine agricultural district.

Authority was given to expend the sum of $8,500 for the construction of a wharf for which contract plans and specifications had been prepared.

On the 16th October, 1912, a contract for this work was awarded to Mr. Henry Hickey, of Peterborough, for the sum of $8,000.

On 15th July last, Mr. Hickey was relieved of the work and new tenders were called.

On the 10th November a contract was awarded to Mr. E. V. H. White, of Burlington, for the sum of $8,394.

Work was commenced 21st January, and is still in progress, and the work done to date consists in the construction and placing in position of nine cribs, also the partial construction of the stone approach.

This work will be completed at an early date. Total expenditure for fiscal year, 1913-14, $7,624.28.

BELLEVILLE.

Belleville, county of Hastings, has a population of 12,000, and is one of the most important cities on the main line of the G. T. Ry. It has a number of large manufacturing concerns to the number of forty, including cement works, locks and hardware specialties, nuts, bolts, horseshoes, canning, mining and hoisting machinery, foundry and boiler works, flour mills, stoneware, pottery, corsets, distilleries, shingle machines, soda water, shirts, furniture, paper, vinegar and jams. It is also a station on the C. P. Ry. and C. N. Ry., and a regular port of call for the R. & O. Navigation Co., Lake Ontario Navigation Co., and other lake steamers.

Authority was given to expend the sum of $50,000 in harbour improvements, and on the 22nd July last a contract for this work was awarded to the Randolph MacDonald Co., for the sum of $116,054.

Work was commenced 31st July last, and is still in progress, having been carried on continuously, and the work done to date consists in the dredging of all the crib seats, being an area of 950 feet by 80 feet; the construction, sinking and filling with stone of 14 cribs, and the building on the ice of two cribs 100 feet by 16 feet with seven courses of timber, and of two cribs 43 feet by 16 feet, one to five courses of timber and the other to seven courses of timber. The stone approach is about three-quarters finished. The work is progressing very favourably.

Authority was given to remove a wreck from the harbour. This work was performed by the Randolph MacDonald Co. Total expenditure for fiscal year 1913-14, $42,571.12.

Dredging.

On 2nd July last, authority was given to perform certain dredging at Allen's wharf for which a contract was awarded to the Randolph MacDonald Co., at 30 cents per cubic yard, place measurement.

Work was commenced 1st July, and completed 25th October. The work consisted in dredging an area 2,900 feet long to a depth of 12 feet below zero, and of which 1,500 feet is 50 feet wide and 1,400 feet is 75 feet wide, also a small triangular piece adjoining the 75-foot channel lying to the south of Allen's wharf.

In doing this work, some 15,113 cubic yards class "B" were removed, in situ.

Authority was received to remove boulders from the harbour in the vicinity of Schuster's wharf.

This work was performed by the Randolph MacDonald Co., in November last.

Total expenditure for fiscal year, 1913-14:—

Re Allen's Wharf—	
To paid Randolph MacDonald Co.	$4,533 90
" " Inspection	93 85
	$4,627 75
Re Schuster's Wharf—	
To paid Randolph MacDonald Co.	$150 00

BIG BAY.

Big Bay, county of Grey, is located on the south shore of Georgian bay, about 18 miles from Owen Sound, and is a farming community. Communication by boat is had with Wiarton, White Cloud island, Griffith's island and Owen Sound.

Authority was given to expend the sum of $3,800 in the completion of a wharf, for which, on the 20th September, 1912, a contract for the reconstruction had been awarded to Mr. J. O. Roddick, of Toronto, for the sum of $5,448.40.

Work was resumed on the 18th March and completed on the 27th June, and consisted in the removal of the old structure, having a length of 483 feet, and the rebuilding of same in timber; rebuilding the stone approach 90 feet long, and the earth and gravel approach 50 feet long.

The structure is composed of cribs and spaces having a length of 343 feet, of which 247 feet is 14 feet wide and 96 feet is 25 feet wide; the latter forming a head-block at the outer end.

Authority was given to expend the sum of $30, in repairs by day labour, and work was performed on the 21st March, and consisted in renewing decking and capping timbers where torn off by the severe gale of the 9th November last.

Total expenditure for fiscal year 1913-14, $3,990.34.

BIG BAY POINT.

Big Bay point, county of Simcoe, is situated on Kempenfeldt bay, an arm of Lake Simcoe. It has a transient population and is patronized by many tourists during the summer season.

Authority was given to expend the sum of $9,500 for the construction of a wharf, for which, on the 30th of January, 1913, a contract was awarded to Mr. Henry Hickey, of Peterborough, for the sum of $7,500.

Work was commenced in May and completed 30th November, and consisted in the construction of a wharf of cribs and spaces 260 feet long by 16 feet wide with an "L" at the outer end 50 feet long by 15 feet wide and a stone approach 100 feet long by 16 feet wide.

Authority was given to have corner plates 2 feet by 12 feet by ⅜-inch thick, placed at the outer corners of the wharf, and the work was duly performed by the contractor.

Total expenditure for the fiscal year 1913-14, $7,885.10.

BLACK RIVER.

Black river, county of Ontario, flows through the township of Rama and discharges into the Severn river on lots 23 and 24, concession M., in said township, and drains a considerable area of same.

Authority was given to expend the sum of $1,000 for improvements, and work was commenced 26th August and completed 7th November.

The work consisted in the removal of logs and obstructions from the bed of the river between St. John lake and Black river for a distance of about 900 feet.

Total expenditure for fiscal year 1913-14, $937.03.

BLIND RIVER.

Blind River is a town having a population of about 2,500, situated on the north shore of Lake Huron on the Canadian Pacific railway about 75 miles east of Sault Ste. Marie and is greater in commercial importance than any place between Sault Ste. Marie and Sudbury. Extensive lumbering operations are carried on in the locality, and a large saw-mill owned by Eddy Brothers is situated in the town.

Authority was given to expend the sum of $500, by day labour in effecting repairs to the wharf.

Work was commenced on the 15th of July, 1913, and was completed on the 30th of September. It consisted of the replacing of occasional decayed planks and timbers in the superstructure and the painting of the warehouse including the roof with one coat of paint. The area of the deck of the wharf is 18,520 square feet and the area painted is 19,000 square feet. The warehouse is 141 feet long by 40 feet wide. Some 2,084 feet b.m. of hemlock planking besides some 4,000 feet b.m. of white oak and other timber, left over from 1912, 900 pounds of iron and nails, and 90 gals. of paint were used with a total expenditure of $484.22.

Dredging.

The object of the work is to provide a channel of sufficient depth for the local passenger and freight boats, and for lumber barges approaching the Government wharf and incidentally, it provides an approaching channel to the extensive lumber wharves of Messrs. Eddy Brothers. It will be about 8,000 feet long by 150 feet wide. The work to be done is the continuation and completion of the existing contract with the C. S. Boone Dredging and Construction Company, of Toronto, Ontario.

During the year 1912, there was dredged 57,197 cubic yards of sand. For the performance of this work $8,865.54 was paid to the C. S. Boone Dredging and Construction Company. On May 24, 1913, work was begun again and 17,480 cubic yards were dredged and scowed away a distance of about a mile, which involved an expenditure of $2,709.40. On account of very stormy weather, work had to be stopped on August 20, 1913, for the rest of the season.

The total expenditure, during the year 1913-14, amounted to $3,472.19.

BOBCAYGEON.

Bobcaygeon, county of Victoria, is located on the Bobcaygeon river, about 50 miles from the town of Lindsay and is a station of the C. P. Ry. It is also on the route of the Trent Valley Canal. Population, 1,500.

Authority was given to expend the sum of $1,500 in the construction of a wharf by day labour, and work was commenced 21st July and completed 22nd September.

The work consisted in the construction of a cribwork wharf having a length of 70 feet and a width of 12 feet, and a stone approach 16 feet wide and 25 feet long.

Total expenditure for fiscal year, 1913-14, $1,441.09.

BOWMANVILLE.

Bowmanville, county of Durham, is situated on the north shore of Lake Ontario, 43 miles east of Toronto by rail on the main line of the G. T. Ry. Population, 3,000. It has a number of important manufactures, and is a growing town.

Instructions were issued to prepare contract plans and specifications for repairs to the east pier, but, as yet, tenders have not been called.

The work will consist in the renewal, in concrete, of the superstructure of the east pier for a length of 655 feet and a width of 20 feet, with a head-block at the outer end 152 feet by 72 feet.

Authority was given to expend the sum of $3,900 in making urgent repairs to the pier head by day labour, and the work was carried on from the 17th September till the 29th October, and consisted in the placing of stone in the head-block and repairing of decking and face timbers of same, also repairing the approach at various places from the shore to the pier-head for a length of 250 feet.

Total expenditure for fiscal year 1913-14, $1,801.47.

Dredging.

On 13th August last, authority was given to have the departmental dredge *No. 105* perform certain dredging at this place.

The dredge worked from 25th August to 2nd October, and removed some 9,600 cubic yards, scow measurement.

The work done consisted in dredging a cut alongside the east pier for a length of 1,640 feet and a width of 40 feet to a depth of 14 feet below zero.

BRACEBRIDGE.

Bracebridge, township of Macauley, District of Muskoka, is a town of 3,500 inhabitants, situated on the north branch of the Muskoka river 5 miles above its discharge into Muskoka lake. It is also the chief town of the district. The Registry Office and headquarters of the courts are situated here. The North Bay branch of the Grand Trunk railway runs through the town.

The town owns three large hydro-electric plants generating, approximately, 2,000 h.p., and is developing a fourth power of several hundred horse-power at High Falls, further up the river.

There are two large tanneries, two planing-mills, woollen-mill, saw-mills and some minor manufactories, all of which procure their power from the municipal plants.

Three steamers of the Muskoka Navigation Co. call here regularly twice a day during the season of navigation, besides a great number of pleasure launches and supply boats.

Building, of an extensive and costly nature, is carried out through the lake district, having Bracebridge as the principal source of supply both for materials and labour.

A contract for the extension of the Government wharf of 80 feet by 20 feet with concrete top and a warehouse of 32 by 16 feet was let to J. O. Roddick, of Toronto, on February 5th, 1914, for $6,847.40, to be completed in 12 months from Jan. 31st, 1914.

The total expenditure for fiscal year 1913-14 is	$3,153 16
Inspection	102 00
Total	$3,255 16

BRIGHTON.

Brighton is an incorporated village in Northumberland county, situated on Presqu'ile harbour, on Lake Ontario, with a station on the G. T. Railway, 92 miles east-north-east of Toronto and 22 from Belleville, is a port of entry, and the population is about 800.

In April, 1912, the harbour works were purchased from Mr. H. T. Webb for the sum of $6,874.

The property consists of a wharf of cribs and spans, having a total length of 181 feet and a width at the inner end of 31 feet, but at the outer end is 43·7 feet wide; a warehouse occupies six feet of the width at the inner end leaving the driveway only 25 feet wide. The approach is of gravel and earth 82 feet long and about 50 feet wide at the inner end. An office building 16 by 36 feet; a storehouse 30 by 52½ feet, and a grain warehouse 30 by 48½ feet.

The wharf and property is very much out of repair.

Instructions were issued to prepare contract plans and specifications for the reconstruction and extension of the wharf, but, up to date, tenders have not been called.

This work will consist in the reconstruction of the superstructure of the existing wharf, having a length of 120 feet and a width of 43 feet, composed of cribs and spaces; a stone approach 100 feet by 25 feet, also the construction of an extension to the wharf 100 feet by 43 feet, to have crib-work substructure and concrete superstructure. The superstructure of the existing wharf, also, is to be of concrete.

Authority was given to expend the sum of $300 in repairs to the wharf by day labour, and the work was carried on from the 1st to 15th September, and consisted in renewing the planking of the deck where urgently required.

Total expenditure for the fiscal year 1913-14, $210.18.

BRONTE.

Bronte, county of Halton, is situated on the north shore of lake Ontario, 27 miles southwest of Toronto. Population 400.

Instructions were issued to prepare contract plans and specifications for wharf repairs for which the sum of $6,000 was authorized, but on 21st June last, authority was given to do the work by day labour; the expenditure to be strictly limited to $5,000.

Work was commenced 11th August and completed 25th December, and consisted of the following:—

East Pier.

Raising this pier 10 inches and placing new joists and decking on 111 feet by 16 feet, and 42 feet by 20 feet on the north end, also placing new capping, 10 by 13 inch, on 214 feet; placing one snubbing post; filling a washout with stone, and making general repairs where required.

West Pier.

Placing new sheet piling for a distance of 62 feet at the north end; placing new decking on the approach 36 feet by 8 feet, and for 60 feet by 12 feet, and for 12 by 18 feet; levelling up the pier for a distance of 48 feet; putting in new timbers and new decking for 48 feet by 16 feet, and placing new capping, of 10 by 10 inch, for 368 feet, in different places, where required.

A new deck scow was built, 32 feet by 10 feet, for construction work.

Total expenditure for fiscal year 1913-14, $3,822.76.

BRUCE MINES.

Bruce Mines is a town of about 700 in population situated on the line of the Canadian Pacific railway about 40 miles easterly from Sault Ste. Marie and on the north shore of Lake Huron. It has a daily steamboat service with Sault Ste. Marie by two lines of boats, and is a regular port of call for all steamship lines routing through the north channel of Lake Huron. It is the terminal of the Lake Huron and Northern Railway, which is now being reorganized with the object of rebuilding and extending into the fertile north country, and this railway promises to become an important factor in the colonization and development of Algoma district.

Authority was given on 10th of June, 1913, to expend the sum of $600; by day labour in effecting repairs to the wharf.

Work was commenced on the 21st of July, 1913, and was completed on the 20th of August. It consisted of the replacing of deck timbers and planks where most required over the whole area of the wharf, but more particularly along the easterly face of the outside portion near the warehouse which is most used by steamboats. The outside pile landing wharf is 91 feet square and the pile work approach is 450 feet long by 20 feet wide. In making the repairs some 16,500 feet b.m. of hemlock timber and 1,200 pounds of iron were used with a total expenditure of $596.28.

Dredging.

The object of the work is to improve the steamboat channel leading to the Government wharf and provide a turning basin. The improved channel will be about 2,400 feet long by 150 feet wide and the turning basin will be 350 feet square. The grade depth of dredging will be 16 feet below standard low water level.

On July 11, 1913, authority was given to perform certain dredging for which a contract had been awarded to the Soo Dredging and Construction Company, Limited, of Sault Ste. Marie, Ont., at 32 cents per cubic yard, place measurement. Work was started on August 20, and carried on until September 20, 1913, when the work was closed for the season. During this period, 16,971 cubic yards were scowed away.

The total expenditure in connection with this work was $6,253.59

BURK'S FALLS.

Burk's Falls, District of Parry Sound, is a village of 700 inhabitants, situated on the Maganatawan river and is a station on the Grand Trunk railway, 56 miles south of North Bay. It is also the terminus of navigation of the Maganatawan river. Several boats owned by the Maganatawan River and Lakes Steamboat Line ply between Burk's Falls and Ah-mic Harbour, 60 miles from Burk's Falls.

On September 22, 1913, authority was given to expend the sum of $2,600 by day labour and work was begun September 24, 1913, and continued up to 30th November, when the sum of $1,247.45 was expended, and a number of boulders on shoals were removed.

BURLEIGH FALLS.

Burleigh Falls, county of Peterborough, is a summer resort at the head waters of Stoney lake. Authority was given to expend the sum of $165, which amount was increased to $185 on 6th October last, for the purchase of and repairs to a building near the wharf.

The building was purchased from Mr. H. W. Darcy for the sum of $75; is built of timber, measures 16 feet by 24 feet, and is 9 feet in height.

The work done consisted in sheeting the building with cove siding and repairing the door and window.

The repairs were commenced 18th and completed 31st of October.

Total expenditures for fiscal year 1913-14, $183.11.

BURLINGTON.

Burlington, county of Halton, is situated on the north shore of Lake Ontario, about 10 miles from the city of Hamilton. Population, 1,500. It has canning factories, basket factories, two barrel factories, and two planing-mills.

Authority was given to expend the sum of $33,000 for the construction of a revetment wall, for which, on the 19th May last, a contract was awarded to Messrs. Hutcheson and Latimer for the sum of $21,800.

Work was begun in June last, and about 150 feet of the wall was built.

The contractors suspended work in July and asked to be relieved of their contract. This was done, and at the request of the reeve a new design for this work was prepared and submitted for approval; the new design will consist in the construction of a sea wall having a length of 1,936 feet and a width of 14 feet, with cribwork substructure and concrete superstructure.

Total expenditure for fiscal year 1913-14, $180.85.

BURLINGTON CHANNEL.

Burlington channel, Wentworth county, is simply a cut through a piece of low lying land which separates Lake Ontario from a large sheet of water called Burlington bay, thereby enabling vessels to reach the city of Hamilton.

Over this cut, there is a swing bridge. The channel is 120 feet in width, and on the northerly side there is a cribwork pier 2,326 feet in length, and on the southerly side a pier 2,722 feet in length, of which 2,310 feet is composed entirely of cribwork and piling, while the remaining portion, 512 feet, has a substructure of piling and cribwork and a concrete superstructure having a width of from 40 feet at the outer or lake end to 23 feet where it adjoins the cribwork portion. The Department of Marine and Fisheries have erected a lighthouse at the easterly or lake end of this pier.

The bridge opened for navigation on the 22nd March, 1913, and closed for the season on the 21st December last, re-opening again on the 28th March.

Authority was given to install a new breaking device at a cost of $150, which was done.

Authority was given to expend the sum of $1,060 in repairs and improvements to the house occupied by the bridge tender, and in this connection an agreement was entered into with Messrs. Ritchie & Fletcher, of Dundas, to perform the work, which consisted in the general repairs to the house and the addition of two rooms upstairs, etc.

Instructions were issued to prepare contract plans and specifications for the renewal of part of the superstructure of the south pier, and tenders were called and the work awarded to the MacKay, Paulin Construction Co., of Hamilton, for the sum of $12,420.14 on the 2nd March, 1914.

Up to date, this work has not been commenced, but will consist in the renewal, in concrete, of the superstructure of the south pier for a length of 267 feet lying between the west end of the present concrete work and the masonry of the swing bridge, having an average width of 23 feet 8 inches and providing a subway under the tracks of the G.T.Ry., 8 feet by 8 feet.

Authority was given to expend the sum of $1,500 for the cutting off of the old piling at the easterly end of the south pier, for a length of 187 feet on a level with the bottom, and this work was carried on from the 15th September to 9th October.

Authority was given to place talus around the pier-head of the south pier at a cost not to exceed $150, and this work was completed 26th August by the Ottawa contractors.

Authority was given to expend the sum of $400 in the renewal of the walks to the south pier, and this work was performed in August last by Mr. John Foord, and consisted in the construction of a concrete driveway from the main street to the approach to the south pier, between the grounds of the Royal Hamilton Yacht Club and their boat house, having a width of 14 feet, and on the north side a length of 83 feet and on the south side 91 feet; also a concrete walk having a length on the approach to the south pier of 212 feet, and a width varying from 6 feet to 11 feet 3 inches; also the gravelling of the approach for a length of 254 feet 4 inches, with a width varying from 33 to 45 feet.

Authority was given to expend the sum of $200 in placing cull concrete blocks as talus around the south pier of the channel at the lake end. This work is partially completed.

Authority was given to expend the sum of $550 in repairs to the west end of the south pier by day labour, and work was commenced 22nd July and completed 22nd August, and consisted in the placing of waling on the southerly side of the south pier for the protection of small boats for a length of 529 feet, and being 3 by 10 inches; also the placing of waling on the channel side of same for a length of 250 feet of 10 by 10-inch British Columbia fir,; also the repairing of the decking where necessary with 3-inch plank.

Total expenditure for fiscal year 1913-14, $6,774.48.

CACHE BAY.

Cache Bay is a saw-mill town on the north shore of Lake Nipissing, of 1,000 population, situated 26 miles west of North Bay, on the main line of the Canadian Pacific railway.

Parliament granted money for the construction of a wharf to consist of a stone and gravel approach 16 by 125 feet long; pilework approach 16 by 208 feet long, and pilework landing head 40 by 56 feet long, to be provided with handrailing, fenders, and 16 by 24-feet corrugated iron freight shed; floor level, 646·0.

During the winter of 1912-13, this work was started and carried on intermittently to March 31, 1913.

To properly store plant and timber, Henry Bennett, then foreman, was engaged April 1 and 2. Work was discontinued until July 17, when Wm. Dagg, as foreman, at $80 per month, with a gang of 1 to 4 men, laid the floor and framed handrailing, to August 2. From this date to September 6, John Johnston acted as foreman and continued above work. Work was completed on November 19.

Expenditure to March 31:—

Labour	$570 92
Materials	880 18
Total	$1,451 10

Dredging.

The departmental dredge *Mattawa* worked on Lake Nipissing (May 19-August 30), making a channel to the new wharf constructed there. A basin on each side of wharf 100 feet long by 60 feet wide and a basin at face of dock 130 feet long by 170 wide along face tapering to 50 feet on the outside, and from there out a channel 1,260 feet long averaging 40 in width were dredged to a grade depth of 8 feet. This work, which was discontinued on account of low water, will be resumed this season.

Some 20,210 cubic yards of clay (scow measure) were removed and spoiled in deep water 5 miles distant. From surveys, before and after, the corresponding quantities, place measure, is 15,556 yards, and the expansion factor is, therefore, 29 per cent, 300 yards of material were exeavated below subgrade (elev. ·630).

CÆSAREA.

Cæsarea, county of Durham, is situated on the south shore of Lake Scugog, distant about 18 miles by water from Port Perry, and 20 miles by rail, from Lindsay. It is located in a farming community and is a popular summer resort. Population, 150.

Authority was given to expend the sum of $5,000 for the construction of a wharf by day labour, and work was commenced 28th July and closed for the season on the 22nd December.

The work done consisted in the construction of the cribwork substructure having a length of 75 feet and a width of 30 feet, also the stone approach having a length of 150 feet by a width of 18 feet on top.

Total expenditure for fiscal year 1913-14, $2,862.18.

CALLENDER.

Callender is a small town on the eastern end of Lake Nipissing, and is in the township of Himsworth, district of Parry Sound, and is about 8 miles from North Bay. The Grand Trunk railway, from Toronto to North Bay, runs through the centre of the town and the station is close to the Government wharf. The Canadian Northern line from Port Arthur also runs through the town.

Several navigation companies which operate on Lake Nipissing, make regular calls with their boats at Callender—the French River Navigation Company, the Callender Syndicate and a local towing company.

Callender is a point of transfer for passengers and freight going into Lake Nipissing and down French river. Some 1,500 to 2,000 people in Callender, besides a large number of summer tourists on French river, benefit by the Government wharf.

Large quantities of supplies for lumber camps are also shipped over this wharf.

The contract for an extension to the wharf consisting of 100 by 20 feet straight, with an "L" of 100 by 20 feet, was let on February 12, 1914, to David Darling, Callender, to be completed in 12 months from 5th February, 1914, at a cost of $6,500.

Total expenditure to end of fiscal year 1913-14, is $3,622.20.

CAMPBELL'S BAY.

Campbell's bay is the name given to a small bay, opposite the township of Burpee, on the Manitoulin island. The surrounding locality is fairly well settled, the residents being all farmers, and the trade of the vicinity is mostly in the nature of farm produce, with some timber, cedar ties and fence-posts. The population is about 100.

The object of the work is to provide a public landing wharf for the convenience and accommodation of the surrounding inhabitants in shipping their products to market. Previous to this, all their produce had to be teamed to Gore Bay.

Instructions were given on 10th of June, 1913, to prepare contract plans and specifications in connection with the appropriation by the last session of Parliament, of the sum of $5,000 for the construction, by contract work, of a public landing wharf. Later on, permission was received to have the work done by day labour.

Work was begun on the 2nd of February, and was completed on March 31, 1914. This work consisted of a pile wharf 92 feet long by 18 feet wide on the east half, and 24 feet wide on the west half, with a pile approach 60 feet long by 12 feet wide, which was connected to the shore by a stone approach 95 feet long by 12 feet wide on top, and a standard wharf warehouse 18 feet wide by 40 feet long was built on pile foundation behind the west wing of the wharf. In the construction of this wharf and warehouse, 56,371 feet b.m. of lumber, 6,742 lineal feet of piling, 12,000 shingles, 50 gallons of paint, 8,152 feet of timber and 3,572 pounds of iron and nails were used, with a total expenditure of $3,958.84.

CLOUD BAY.

Cloud Bay, district of Thunder Bay and Rainy River, is a settlement on the northwest shore of Lake Superior, some 30 miles southwest of Port Arthur, and is the centre of a considerable area of farming country which is being opened up. To aid this development, better water transportation was needed.

With this end in view, the work done, which consisted of dredging a channel through a sand bar in Cloud bay, at the mouth of the Cloud river, was authorized.

A contract was let on the place measurement basis to the Great Lakes Dredging Co., of Port Arthur; work was started July 14, and completed July 21, 1913, during which time a channel 1,700 feet long and 75 feet wide was dredged to a depth of 14 feet below mean low water. The hydraulic dredge *Shuniah* was used, and the average depth of face was 11 feet.

Fifty-four thousand six hundred and fifty-six cubic yards, place measurement, of sand and clay were removed at a unit cost of 25 cents.

Since its completion, the channel has given every satisfaction, and has shown very little tendency to fill in.

COBOURG.

Cobourg, county of Northumberland, is situated on the north shore of Lake Ontario, 73 miles east of Toronto, on the G.T.Ry., C.N.Ry., and C.P.Ry. It has steamship connection with Rochester, 70 miles; Toronto, 60 miles; Montreal and principal United States and Canadian ports. A daily all year ferry service to Charlotte, carrying 28 loaded cars. Among the industries located at this place might be mentioned the Crossen Car Works, John Dick Co. Woollen Mills, Cobourg matting factories, Provincial Steel Co., etc. Population, 5,300.

Authority was given to expend the sum of $57,830 for the construction of an extension to the west breakwater by day labour, and work was commenced 1st March and closed on 9th October, resumed again on the 1st January and suspended 31st March.

The work consisted in the construction of one crib having a length of 110 feet and a width of 30 feet which has been sunk in position, filled with stone and the concrete superstructure placed thereon, also the construction of a second crib 110 feet by 30 feet, ready to sink into position in the spring, and the securing on the ground of the stone filling for the sinking of same and the manufacturing of all the concrete blocks to be placed on top.

Instructions were issued to prepare contract plans and specifications for the reconstruction of the superstructure of the centre pier at this place. Tenders were called and the contract awarded to the Randolph Macdonald Co., for the sum of $27,334.95, unit prices.

No work has yet been done on this contract. The work will consist in the renewal of the superstructure for a length of 331 feet and a width of 32 feet, and for a length of 330 feet with a width of 18 feet, in concrete.

Authority was given to expend the sum of $3,500 in repairs to the east pier by day labour, and work was commenced 10th October and completed 31st December.

This work consisted of the following: To the esplanade, 7 large mooring hooks placed at intervals along the dock; 9 tie posts, wooden, set in concrete and 4 concrete tie posts, also one section of same was repaired having a length of 245 feet and a width of 12 feet, and another section was re-decked having a length of 130 feet and a width of 12 feet with 2-inch plank.

To the east roadway: One section renewed in concrete, 102 feet long by 15 feet with an average depth of 4 feet; one section redecked with new 2-inch plank, 36 feet by 15 feet, and 6 concrete mooring posts and two wooden mooring posts well set in concrete. A large hole near the warehouse, outside, filled with stone and faced, and one small crib sunk, 40 feet by 20 feet by 8 feet. An irregular hole north of this filled and faced, 129 feet by 6 feet by 8 feet, and one section, complete new superstructure, was re-decked with 3-inch plank, 75 feet by 15 feet.

East and west breakwater: One section of new superstructure, 90 feet by 24 feet, and one section re-decked 80 feet by 15 feet with 2-inch plank, and one niggerhead set in concrete. Total expenditure for fiscal year 1913-14, $45,771.18.

Dredging.

On 6th June last, authority was given to have the General Construction and Dredging Company resume work at this place for which a contract had been awarded to them at 19½ cents per cubic yard, class 'B,' scow measurement.

Work was commenced 16th June and completed 22nd November. The progress of the work was greatly delayed by rough, unfavourable weather.

The work consisted in dredging in the approaches to a depth of 24 feet below zero.

In doing this work some 32,143 cubic yards, scow measurement, were removed.

On 31st October last, authority was given to have Mr. J. E. Russell remove the outer 150 feet of the submerged cribwork of the centre pier at 50 cents per cubic yard.

This work was duly performed and some 1,800 cubic yards removed.

Total expenditure for fiscal year 1913-14, $7,548.88.

COLBORNE.

Colborne, county of Northumberland, is situated on the north shore of Lake Ontario, about 14 miles east of Cobourg. Population, 1,000.

Authority was given to expend the sum of $800 in wharf repairs by day labour, and work was commenced 1st July and completed 12th August.

The work consisted in the placing of new deck stringers and decking where required, the straightening of the damaged cribs and building up to the level of the remainder of the wharf and filling same with stone where required, and the rebuilding of the approach.

Total expenditure for fiscal year 1913-14, $802.87.

COLCHESTER.

Colchester is a village situated on the north shore of Lake Erie, in the county of Essex, about 4 miles south of Harrow, and about 14 miles from the Detroit river; it also lies about 3 miles from Oxley, a favourite summer resort. Harrow is the nearest point with railway connection. Population about 200.

On the 8th July last, authority was received to expend the sum of $350 on repairs required to landing pier and approach to same.

Work was performed between August 5th and September 24th and consisted of repairs and renewal of portion of approach with stone and gravel as also stone filling in the pier.

The concrete side wall was levelled up where settlement had taken place, and other minor repairs were made.

Expenditure during the fiscal year 1913-14 is $350.

COLLINGWOOD.

Collingwood, Simcoe county, is located near the most southerly part of the Georgian bay. It has a number of important manufactures, and large quantities of coal, grain and general merchandise are brought in. The Collingwood Shipbuilding Company builds and repairs vessels to the value of one and one-quarter millions annually.

Instructions were issued to prepare contract plans and specifications for the reconstruction of the east and west breakwaters, and these were duly prepared and forwarded, but instructions were given that this work should stand in view of the dredging to be performed.

This work will consist in the renewal in concrete of the superstructure of the west breakwater, 700 feet by 22 feet, and of the east breakwater, 1,916 feet by 24 feet.

Up to date there has been no expenditure.

Dredging.

On 19th July last, authority was given to have certain dredging performed at this place, and 24th July a contract was awarded to the C. S. Boone Co. for the removal of 5,000 cubic yards class "A" and 60,000 cubic yards class "B", place measurement, at the following rates: "A", $2.77; "B", 59½ cents.

Work was commenced on 2nd September and closed for the season on 23rd November.

The work done this season consisted in the removal of part of the segment along the easterly side of the channel to the harbour, for a length of 835 feet, with a width varying from 65 feet to 125 feet.

In doing this work, some 18,052 cubic yards, class "B", and 42½ cubic yards boulders were removed.

On 8th and 15th May last, authority was given to have the departmental dredge *Industry* perform certain work at this place.

Work was commenced 21st April and carried on till 17th May, and then from 29th September till 15th November, when, owing to rough and unfavourable weather, work was closed for the season.

The work done consisted in dredging at the wharf of the Collingwood Packing Co., at the Charlton Lumber Co., and in the turning basin.

During the season, the dredge removed 35,161 cubic yards, scow measure.

On 25th December last, authority was given to expend the sum of $225 in repairing the wharf of the Collingwood Packing Co., where injured by the departmental dredging plant during the storm of the 9th November last.

This work was commenced in December, was suspended owing to unfavourable weather, but was resumed and completed in March, as soon as the structure was clear of ice and snow.

Total expenditure for fiscal year 1913-14, $11,211.80.

COLPOY'S BAY.

Colpoy's Bay is a settlement in Bruce county, on the west side of Colpoy's bay, an arm of the Georgian bay, 3 miles north of Wiarton. Population, 60.

On 24th July last, authority was given to have the departmental dredge *Industry* perform certain dredging at this place.

Work was carried on from the 25th to 30th July, and consisted in dredging an area 175 feet long by 80 wide to a depth of 14 feet.

In doing this work some 6,696 cubic yards, scow measurement, of material was removed, which was overcast and used as filling in rear of wharf.

COURTRIGHT.

Courtright, Lambton county, is a small village situated on the easterly bank of the St. Clair river, 11 miles south of Sarnia, and on the line of the Père Marquette railway. Population, about 500.

Under authority dated February 12, May 19 and 26, 1913, 6,291 cubic yards, scow measurement, of clay were removed by the Government dredge *Ontario* in completing the approach in the River St. Clair to the landing pier constructed in 1912 by the Western Construction Company, it being understood that the said pier would be available in future for the use of the public as well as for the said company.

The work done consisted in dredging over an area in front of the proposed wharf to a depth of 18 feet below low water level as established by water level transfer from the gauge at Point Edward.

The operations extended from June 13 to 26, 1913.

DAWSON POINT.

Dawson point, in Nipissing district, is a landing on Lake Timiskaming and serves an agricultural district.

The construction of a cribwork addition 40 by 20 feet to wharf was started October 2 and discontinued November 29. The work was completed at that time except 4-inch sheathing to be placed over crib on face and north end, and wheel-guards and fenders to be put on. All timber to finish wharf was piled close at hand. Work was resumed February 16 and carried to completion on March 6. During the winter, the ice pressure moved the lighter crib extension; in finishing the work, it was necessary to considerably strengthen the face.

Expenditure to March 31:—

Labour	$1,386 00
Materials	261 17
Total	$1,647 17

Dredging.

The departmental dredge *Queen* worked at Dawson point, on Lake Timiskaming (July 29), removing small crib at the north end of the wharf, and preparing bottom for new cribwork extension.

Seventy-four yards of stone and timber (scow measurement), were taken out.

DESBARATS OR WALKER RIVER.

Dredging.

This village is about 30 miles east of Sault Ste. Marie, on the line of the C.P.Ry., and about a mile from the mouth of a small river named Walker river, which flows in a southerly direction and empties into the north channel of Lake Huron, opposite St. Joseph island, and has a population of about 100. The mail and much of the passenger traffic to and from St. Joseph island connects with the railway at Desbarats, this being the outstanding feature of its importance. It is also the trading place for about 100 farmers and a moderate amount of lumbering is carried on in the vicinity. The shipping over the river is confined to the carrying of mail, express matter and passengers in launches between Desbarats station, Richard's Landing and Hilton.

The object of the work was to cut a channel through a mud bank about 40 feet wide by 1,540 feet long and to a depth of 6 feet below standard low water level.

On July 11, an Order in Council was passed giving authority for the awarding of a contract to the Soo Dredging and Construction Company, of Sault Ste. Marie, Ontario, to perform certain dredging at 32 cents per cubic yard, place measurement. As it was found advisable to have all the material overcast, the contractors were paid at the rate of 21⅓ cents per cubic yard, place measurement, in accordance with the provisions of the contract specifications.

Work started on October 7, by a clam-shell dredge and was satisfactorily completed on October 17, 1913. During this period, 6,770 cubic yards of silt and clay were overcast and the amount paid to the Soo Dredging and Construction Company, Limited, for the performance of it was $1,444.27.

DESERONTO.

Deseronto, county of Hastings, is situated on the Bay of Quinte, and has a population of some 2,000. It is an important fishing station and has several important manufactures, such as the Rathbun Co., manufacturers of box and flat cars, fish boxes and all kinds of boxes for merchandise; Dominion Match Company; Deseronto Rolling Mills. Three to four thousand tons of coal are brought in annually.

On 23rd May last, authority was given to perform certain dredging at this place, and on 30th May a contract was awarded to Mr. J. E. Russell at $3 per yard, place measurement, for class "A."

Work was commenced 14th July and completed 22nd September, and consisted in dredging an area having a length of 720 feet and a width of 90 feet at the inner end and 125 feet at the outer end.

In doing this work, some 5,400 cubic yards class "A" were removed.

Total expenditure for fiscal year 1913-14, $16,505.18.

DYER'S BAY.

Dyer's Bay, county of Bruce, is situated on the east shore of the Bruce peninsula, 16 miles from Lion's Head. Population, 200.

Authority was given to expend the sum of $5,000 in wharf extension by day labour, and work was commenced 1st July and carried on till the 29th November, then resumed 1st March and completed 31st March.

The work consisted in the construction of a solid cribwork structure 50 feet long by 25 feet wide as an extension to the existing wharf, also the filling in of the outermost space in the original wharf with cribwork.

Total expenditure for fiscal year 1913-14, $4,885.01.

ECHO BAY.

Dredging.

This place is situated about 15 miles east of Sault Ste. Marie, on the C. P. Ry. and the vicinity has a population of about 400, whose occupations are principally in connection with agriculture and lumbering. A water route for small boats consisting of Echo bay, Echo river and Echo lake extends inland from Lake George a distance of about 12 miles and is much used.

The object of the improvements was to make a channel through Echo bay and Echo river 6 feet below standard low water level, namely: elevation 580 feet above mean sea level by 60 feet wide, to make it possible to export wood, tan bark, and logs, etc., from the Echo lake region, on scows, and to enable settlers and lumbermen of the district to ship their supplies in and out on launches and small steamboats. Dredging was performed at the various places where bars and shoals existed and extended over a distance of about 5½ miles.

This work was begun, under contract, in 1911 and carried on during the fall of that year and throughout the summer of 1912 by the Superior Dredge and Dock Company, of Sault Ste. Marie, Ontario, and the contract price was 22 cents per cubic yard.

Work was commenced on 1st of July and was completed on 22nd of October, 1913. During this period, some 16,664 cubic yards, place measurement, of mud and soft clay were scowed away and 1,181 cubic yards were castover, the latter being paid for at the rate of 14⅔ cents per cubic yard.

The total expenditure during the year 1913 amounted to $4,365.92.

FITZROY HARBOUR.

Fitzroy Harbour, a village in Carleton county, is located on the south shore of the Ottawa river just below Chats Falls.

Parliament, at its last session, voted an amount of $5,500 for the construction of a wharf. During last summer, an extensive survey was made for wharf site and location of channel to be dredged. Later in the year, contract plans and specifications were prepared and tenders called. The contract was awarded in March to Messrs. Thomas and John Moran for the approximate sum of $7,166.90, and work was just being got underway at the end of the fiscal year.

The proposed structure, to be of open-face crib-work, sheeted, 96 by 48 feet, built 4 and 9 feet above low water level, drawing 9 feet along landing faces, and consisting chiefly of a line of crib-work 8 to 16 feet wide, enclosing backfill from material to be excavated under water from trough. It being necessary to extend the crib-work to the grade of future dredging some 4 feet and more below the present river bottom. The

wharf is to be provided with landing for launches, together with freight shed 16 by 48 feet, steps and spiral roadway to overcome the steep river bank.

The land required for wharf was purchased from Mr. H. Kedey for the sum of $50.

Expenditure to March 31:—	
Land and transfer	$73 30
Printing and advertising	77 34
Total	$150 64

FORT WILLIAM.

Fort William, a city of 25,000 inhabitants, is situated at the west end of Lake Superior, at the mouth of the Kaministiquia river, in the District of Thunder Bay.

It is the principal lake port on the north shore of Lake Superior, and the termini of two transcontinental railroads.

Through this port, the terminus of lake navigation, the bulk of the grain grown in the Canadian west passes on its way to the markets of the east.

From September 1, 1912, to August 31st, 1913, the following amount of grain was handled in this port by vessels and railroads as follows:—

	Bushels.
Wheat—Lake	96,705,105·14
" —Rail	12,375,291·37
Oats—Lake	28,124,679·00
" —Rail	5,595,023·03
Barley—Lake	8,752,067·12
" —Rail	1,293,787·26
Flax—Lake	15,891,313·36
" —Rail	924,150·32

During the season of navigation, 2,050 vessels arrived with a tonnage of 4,552,192 tons, and 2,030 vessels departed with a tonnage of 4,606,454 tons.

Heavy shipments of package freight, merchandise and coal were received during the season of navigation and dispatched westward.

Dredging was resumed in this harbour for the season of 1913-14, on April 29, when suction dredge *Shuniah* commenced work.

Dredge	*No. 8*	commenced	work	April	30.
"	*Dominion*	"	"	May	1.
"	*No. 6*	"	"	"	1.
"	*No. 15*	"	"	"	3.
"	*Frank*	"	"	"	5.
"	*No. 5*	"	"	"	7.
"	*Province*	"	"	"	8.
"	*Imperial*	"	"	"	6.
"	*No. 1*	"	"	"	20.

These dredges have been almost continuously at work during the season, and have operated in various portions of the harbour.

Dredge *Shuniah* was withdrawn from the work to go to Cloud bay on July 12, and returned July 29; was withdrawn again from this work to go to Port Arthur on September 20, and returned to McKellar river on November 7.

The work carried on was as follows:—

Canadian Pacific Company's slip No. 1 was completed under contract.

On the Kaministiquia river, shoal areas were removed, in front of Imperial Oil Company; opposite elevator "B"; opposite subway; south side of river; C.P.Ry. bridge, and opposite elevator "D."

The work of widening the upper Kaministiquia river extending from Grand Trunk Pacific bridge easterly to opposite the Imperial Oil Company's dock, was carried on, and dredge *No. 5* worked in this position almost the whole season.

The work of dredge *No. 5* practically completes the widening in this locality.

The work of deepening into grade on the Kaministiquia river was carried on from G.T.P. bridge to consolidated elevator, and a start was made on completing the deepening from the consolidated elevator to the old municipal power house, and the work was in progress when ice conditions stopped dredging operations for the season.

On the Mission river, one cut was made along in front of the G.T.P. rail dock, removing a shoal area, and opposite this dock, in the main channel of the river, shoal areas were removed.

The work of developing G.T.P. slip No. 3, was actively carried on, and dredge *Frank* was engaged in this work during the whole season. Very satisfactory progress was made in this section, and a small amount of work next season will complete.

Work was commenced in developing G.T.P. slip No. 2, on July 29, and was continued on this section until August 30, and considerable development was carried on in this locality.

The work of deepening the Mission river over the full width to full grade depth was carried on over the area extending from the Kaministiquia river as far as the east end of Seaman Kent Company's dock, and very satisfactory progress was made in this work. Ice conditions, however, stopped the work for the season.

In the work of developing the entrance channel to the Mission river, dredge *Dominion* was engaged from June 3 to October 31, and this work was completed and the channel opened for navigation with full width and full depth on November 6. The Department of Marine and Fisheries having placed the necessary range lights and spar buoys.

McKellar River.

The heavy excavation in connection with the development of the McKellar river was resumed on April 29, and since that time four dredges have been kept at work in this section. The progress of development has been rapid, and on August 1, 1913, the C.P.Ry. were enabled to utilize double the dockage with full draft over that which they had at commencement of season.

Work was continued as long as possible in this waterway, and greatly improved conditions resulted from the work accomplished. The time for completion of this contract having been extended to July 1, 1914, the work will be completed by that date.

The sections dredged over are as follows:—

Opposite Consolidated Elevator.—Widening the river to full width of 500 feet was carried on in this section, and 231,457 cubic yards were removed.

Opposite Western Terminal Elevator.—Removal of the heavy banks opposite this section was continued, and 227,559 cubic yards were removed.

Opposite Power House.—Removal of heavy banks in this section was carried on, and 33,709 cubic yards were removed.

In Front of Horne Elevator.—The work of developing in front of the location to enable this new elevator to use the water front was carried on, and 23,872 cubic yards were removed in doing this work.

Kaministiquia River opposite Elevator "D".—The work of completing the widening started in this section last year was carried on, and in finishing this work 73,426 cubic yards were removed.

G. T. P. Bridge to Horne Elevator.—The work of deepening the river to full grade depth was carried on over this section, and 94,194 cubic yards were removed.

Horne Elevator to Consolidated Elevator.—The work of deepening this section to full grade depth was continued, and 104,766 cubic yards were removed.

Kaministiquia River, Consolidated Elevator to Power House.—A start was made in deepening this section to full grade depth, and up to date 63,823 cubic yards have been removed.

Kaministiquia River to C.P.R. Bridge.—Shoal areas at this location were removed amounting to 22,620 cubic yards.

Kaministiquia River opposite Lot No. 8.—Development work to enable Dwyer Elevator Company to use their water frontage, and new dock was carried on, and 12,104 cubic yards were removed.

Opposite Elevator "E".—A small section of widening left over from last year at this location was removed with an excavation of 88,922 cubic yards.

Imperial Oil Company.—A shoal area in front of this dock, amounting to 6,250 cubic yards, were removed.

Kaministiquia River opposite Subway.—A small section of widening remaining to be done was completed, and 61,746 cubic yards were removed.

C. P. Ry. Slip No. 1.—Work was resumed in early spring, and the work advanced rapidly. The work was completed, and the amount of excavation during this fiscal year was 188,181 cubic yards.

Work was actively resumed on opening of navigation and continued all season. Greatly improved conditions resulted, and freedom of navigation was afforded. The work while heavy excavation has advanced very well, will be finished by contract date 1st July, 1914. During this season, and up to the 27th December, there was excavated a total of 1,304,084 cubic yards.

Mission River.

Kaministiquia River to Starch Works.—The deepening of this section for the full width and full grade depth of the river was carried on, and up to the 24th of December, there was removed a total of 219,832 cubic yards.

Seaman Kent to Starch Works.—The deepening of this section over the full width of the river was entered upon, and considerable progress has been made to date. Up to the 24th of December there was removed from this section 144,333 cubic yards.

G. T. P. Rail Dock.—One dredge cut was made in front of this dock removing a shoal area, and in so doing 1,635 cubic yards were removed.

Opposite G. T. P. Steel Dock.—Shoal areas in this locality were removed, and in doing so 22,713 cubic yards were removed.

Mission Entrance Channel.—The heavy excavation required to develop this channel was proceeded with. This work was finished and available for navigation with full width on November 6. The Department of Marine and Fisheries having placed in position the necessary range lights and spar buoys. In doing this work 906,691 cubic yards were removed.

G. T. P. Slip No. 3.—The heavy excavation of this section occupied the services of dredge *Frank* all season, and very little remains to be done to complete this section. A total of 586,372 cubic yards have been removed to November 29th.

G. T. P. Slip No. 2.—A start was made on developing this section, and a month's work was done in this locality. The excavation for this section amounts to 61,939 cubic yards.

Mission River opposite Lot 1, Concession K.—A section of shoal water extending across the basin to the entrance channel was removed, and in doing so 89,409 cubic yards were excavated.

Mission River opposite G. T. P. Slip No. 3.—Deepening of this area was carried on from December 6 to December 24, removing shoal areas heretofore existing. A total of 38,676 cubic yards were removed in doing this work.

Backfilling.—In connection with the contract for Mission river revetment wall, there was deposited in and behind the cribs a total of 57,890 cubic yards.

The amount of material removed by the various dredges is as follows:—

Dredge *Shuniah*	575,505
" *Province*	7,993
" *Imperial*	52,452
" *Frank*	635,829
" *Dominion*	1,300,627
" *No. 8*	535,983
" *No. 15*	2,281,505
" *No. 6*	469,313
" *No. 5*	655,112
" *No. 1*	169,487
Backfilling	57,890
Total	4,681,696

A total of 4,681,696 cubic yards were removed between April 30th and December 24th, made as follows:—

Kaministiquia River.

Kaministiquia river opposite consolidated	231,457
" " " Western Terminal	227,559
" " at C. P. Ry. bridge	22,620
" " opposite Lot No. 8	12,104
" " " elevator "E"	88,922
" " " power house	33,709
" " at Imperial Oil Co.	6,250
" " opposite subway	61,746
" " in front of Horne elevator	23,872
" " opposite elevator "D"	73,426
G. T. P. bridge to Horne elevator	94,194
Kaministiquia, consolidated to power house	63,823
" Horne elevator to consolidated	104,765
Total	1,044,448

Mission River.

Mission river opposite Lot 1, concession K.	89,409
" " G. T. P. rail dock	1,635
G. T. P. slip No. 3	586,375
Mission river opposite steel dock	22,713
Seaman Kent to starch works	144,333
Mission entrance	906,691
Mission, Kaministiquia to starch works	219,832
Mission river opposite G. T. P. slip No. 3	58,676
Backfilling	57,890
Total	2,067,554

McKellar River.

Situ, 1,120,134 cubic yards, situ and scow	1,304,084

G.T.P., Slip No. 2.

Situ	61,939

C. P. Ry., Slip No. 1.

Situ, 188,181 cubic yards, situ and scow	203,671

Totals.

Total for Kaministiquia river	1,044,448
" " Mission river	2,067,554
" " McKellar river	1,304,084
" " C. P. Ry. slip No. 1	203,671
" " G. T. P. slip No. 2	61,939
Grand total	4,681,696

Summary of Cost.

To paid Contractors	$833,533 21
" " inspection	6,924 00
" " Justice of the Peace (Affidavits)	195 00
" " clearing land	449 92
Grand total	$841,102 13

Mission River Revetment Contract.

Work was resumed on Mission revetment wall on opening of navigation, and this work was rushed forward to completion. Six cribs, namely 61, 62, 63, 64, 65 and 66 were sunk in position.

Concrete blocks were laid over balance of work totalling 1,314·82 cubic yards.

Mass concrete totalling 2473·19 cubic yards was completed.

Backfilling behind finished work was carried on to fill up voids left by scow trench.

Summary of Cost.

To paid Contractors	$65,286 61
" " Inspectors	892 00
Total	$66,178 61

Plans and specifications for an extension to the Mission river revetment wall for a length of 2,646 feet were prepared.

FRENCH RIVER DAM.

Dredging.

The departmental dredge *Mattawa* worked at the French River regulating dam (September 20-27) removing portions of coffer-dam.

Four hundred and thirty yards of logs, stone, etc. (scow measure) were removed.

GODERICH.

Authority was received under date of July 15, 1913, to remove 26,678 cubic yards, scow measurement, of class B material and 200 cubic yards, place measurement, of class A material, in this harbour in order to complete the contract with the Marlton Dredging Company, dated July 15, 1912.

Under date of September 4 last, an additional quantity of 7,000 cubic yards, scow measurement, of class B material, was authorized.

Work was commenced by the above company with the dredges *Goderich* and *Menestung* on July 21 and was completed on November 6 last, during which period 33,678 cubic yards, scow measurement, of silt, clay and gravel and 192·1 cubic yards, place measurement, of solid rock were removed.

The objects of this work were as follows, viz.:—

(1) To remove the shoal which annually forms at the outer end of entrance channel to piers.

(2) To maintain a safe depth for navigation between piers.

(3) To remove a small shoal of rock near the town dock in the inner harbour.

The following depths below low water level were adhered to in dredging in the portions of the harbour above referred to:—

In outer harbour or entrance to piers, 22 feet below L.W.L.

In inner harbour and between piers, 21 feet below L.W.L.

In the outer harbour an area of about 210,000 square feet was dredged, and, between piers, a channel 1,800 feet long was widened to a width of 125 feet.

The respective widths and depths of the improved channels on the completion of the above work were approximately as follows:—

Outer entrance channel, 150 feet wide, 22 feet deep.

Between piers, 100 feet wide, 21 feet deep.

In the inner harbour, a channel adjacent to south pier and town dock 1,000 feet long, 300 feet wide and having a minimum depth of 19 feet below L.W.L. existed.

Adjacent to the river breakwater, in the inner harbour, the minimum depth was 18 feet over an area of 500 feet long and 150 feet wide and connecting these two channels, there existed a minimum depth of 18 feet over an area 400 feet long and 250 feet wide.

The cost of this work was $9,181.25.

GRAND BEND.

Grand Bend, Lambton county, is a village situated on the easterly shore of Lake Huron, at the mouth of the Sauble river, about 13 miles from Parkhill, the latter place being the nearest railway station. It is also 15 miles from Exeter, and about 30 miles south of Goderich. It is a favourite summer resort. Population, about 300. Surrounding district is rich agriculturally, and a large number of horses and cattle are raised.

Work of repair was performed between the 29th June and the 30th September, and consisted of the securing and placing of five 1¼-inch tie rods through faces of pier; making minor repairs to decking of pier and the construction of timber walk leading from concrete steps across sheet piling formerly constructed by the department.

The work of salvaging the timber washed out of the north pier was commenced on the 17th March and completed on the 24th March, 1914.

Works at this point are in very fair condition, but considerable work must be done during the next fiscal year in making necessary repairs to the north pier which suffered considerable damage, particularly in connection with its superstructure.

In the execution of the above works, the following amounts of material were used: 620 feet, b.m., timber; 713 pounds iron.

Total expenditure for the fiscal year 1913-14 is $206.80.

GRAVENHURST.

Gravenhurst, District of Muskoka, is situated at the south end of Lake Muskoka, and is the terminal of the Muskoka Lakes Navigation Company's boats, is also the chief centre of tourist traffic in the district. Important industries are located at the place, such as rock crusher, tanneries and lumber mills. Population, 1,600.

On June 10th, 1913, authority was given to expend the sum of $1,200 for the erection of a new warehouse and shelter at the shore end of the new Government wharf. Work was begun July 16th, 1913, and completed September 30th.

The building consists of wood, resting on cribs filled with stone, and a floor of concrete. The size of the building is 15 by 30 feet, subdivided into a shelter 15 by 20 feet, and a waiting room 15 by 10 feet. There are also benches around the shelter and inside of waiting room. The building was painted two coats, white lead and oil.

The object in erecting this building is for the purpose of affording shelter to tourists and for storage of baggage and freight for transportation to and from the boats.

On January 2nd, 1914, authority was given to expend a sum of $83.50 in placing a life chain along sides of wharf. This work was completed on February 26th, 1914, at a cost of $72.40, making the total expenditures for fiscal year as follows:—

Warehouse and shelter and inspection	$1,136 01
Life chain and inspection	72 40
Total	$1,208 41

GRIFFITH'S ISLAND.

Griffith's island, county of Grey, is the largest of the three islands in the Georgian bay, at the entrance to Colpoy's bay and Owen Sound.

It has an area of 3,000 acres, of which a considerable portion is arable. There is a saw-mill on the island, near the site of the wharf, and the island is fairly well timbered and a lighthouse stands on its northeasterly side. Population, 100.

Authority was given to expend the sum of $250 in wharf repairs by day labour, and work was carried on from the 12th to 23rd August and on the 8th October.

The work consisted in replacing a number of timbers on the south face of the wharf and the re-filling of the cribs with stone.

Total expenditure for fiscal year 1913-14, $248.24.

Dredging.

On 10th July last, authority was given to have the departmental dredge *Industry* perform certain dredging at this place.

Work was carried on from the 11th to 18th July and consisted in dredging an area 169 feet long by 40 wide in the bottom and 60 wide at the top to a depth of 18 feet.

In doing this work, some 3,100 cubic yards, scow measurement, were removed.

HAILEYBURY.

Haileybury, a town of Nipissing district with a population of 3,800, is located on the west shore of Lake Timiskaming and on the main line of the T. & N. O. Ry.

Work of completing improvements to wharf at Haileybury was carried on intermittently.

To take advantage of low water stage, which storage conditions now reduce to a brief period before the spring flood, concrete facing of stone approach for a distance of 330 feet, was completed off floats, after having had to remove considerable snow and ice and replace the form work.

The shore section of the approach, 280 lineal feet, which was about three feet below the deck of the wharf and only 15 feet in width, was raised with concrete members 12 inches wide and placed at 8-foot centres across, and parallel to, the approach; bracket members reinforced with cold twisted steel were built 8 feet centre to centre along the south side; a slab, reinforced with triangle steel mesh, pannelled and crowned over the roadway, together with three reinforced guard rails now provides for walk 4 feet 6 inches wide and roadway 17 feet wide, well drained by weepers every 8 feet in the north and intermediate guard rails. The old three-line W. I. pipe handrail was erected on the north side for a distance of some 530 feet and the W. I. pipe holes for electric light wires embedded in the guard rail. The stone approach extension to railway spur at shore end was completed with road metal, guard rails, etc., and the walls cemented in the joints.

The main slip on wharf and guard rail were repaired; the fenders of channel steel sections were completed by the addition of oak pieces and concrete grout core; the sheds were painted; the wharf was repaired and strengthened, and ice wales added where one of the steamboats ran its bow into the south end of landing-head.

Plans were prepared and some timber procured towards the proposed inner dock along Market building.

Expenditure to March 31, $8,512.50.

Shipyard.

The Haileybury shipyard, located two miles north of Haileybury harbour on Lake Timiskaming, was further improved during the past year and considerable work was necessary in connection with laying up and repairing dredging and construction plants.

During the fall, one set of shipways was overhauled, the carriage repaired and strengthened, four shelters were built for hauling ropes, etc., and a new cable with fittings and supplies procured. Later, a first-class shed 22 by 100 feet was built to store the stock of oak and B.C. fir repair timber procured in 1913; also as a working shelter. Small sheds 13½ by 16 feet and 16 by 24 feet, discarded from nearby wharves under improvement, were transported to the shipyard for additional shelter of plant, tools, oils, etc. Repairs to the service dock were started in March.

A sum of $4,940.64, apportioned from the vote, "New Dredging Plant, Ontario and Quebec," was used during the past season for the above improvements.

Dredging.

The departmental dredge *Queen* worked on Lake Timiskaming (June 19-July 26) improving the basin back of wharf. A portion of harbour, just inside of wharf, about 200 feet square, was dredged and cleaned up to grade elevation 568·5, and a section of the same dimensions between this point and the market building was dredged to elevation 573·5.

Seven thousand seven hundred and seventy yards of clay and hardpan (scow measure) were removed and spoiled in deep water one mile distant. From surveys the ice in 1913 and 1914, the corresponding quantity, place measure, is 7,492 yards, and the expansion factoris, therefor, only 3·7 per cent; 382 cubic yards of this material were excavated below subgrade.

HAMILTON.

Hamilton, county of Wentworth, is situated on the southwest shore of Burlington bay, at the westerly extremity of Lake Ontario, and is a station on the G.T.Ry., C.P.Ry., T.H. & B.Ry., and is a port of call for vessels to Montreal, Fort William, Toronto, etc. It has about 400 factories, including steel, iron, cotton and woollen mills, agricultural machinery, tobacco, electrical wires and cables, clothing, store fixtures, stoves, ploughs, elevators, boots, furniture, etc., etc. It is the centre of the Niagara fruit district Population, 100,000.

Authority was given to expend the sum of $225,000 for harbour improvements, and on the 10th March, 1913, a contract was awarded to Messrs. Hennessy, Poupore, Dwyer and Taylor for the sum of approximately $180,000, schedule prices, to construct an extension to the revetment wall.

Work was commenced 7th May and carried on continuously, and consists in the construction of 1,536 feet of retaining wall with deck 10 feet wide, and dredging in the harbour to depths of 16 and 17 feet at different parts.

Of this work, to date, 122 complete pile bents, or 610 piles of 30, 40 and 50-foot lengths have been driven, 57 pile bents have been capped, 37½ pile bents have been cross-braced, 881 cubic yards of concrete blocks have been made, of which amount 147 cubic yards have been set on the pile bents, 594 feet run of stringer 12 inches by 12 inches has been bolted to the face of the pile bents, 426 feet or 631,800 pounds of steel sheet piling has been driven along the face of the wall, 132 feet run of oak waling has been bolted to the steel sheet piling and 67,000 cubic yards have been dredged and deposited behind the retaining wall under construction.

In connection with this work the following extras have been authorized:—

The substitution of Lackawanna for Hunter steel piling; increase in length of wooden piles where necessary in my judgment, and the increasing the length of every tenth steel pile to 40 feet at 4·6 cents per pound.

Authority was given to expend the sum of $150 for repairs to the Government revetment wall, where damaged by the steamer *Calgarian*, and this work was duly performed by the contractors for the sum of $116.

This revetment wall was subsequently damaged by the steamer *Plummer* and repairs have been made to same by Mr. F. G. McGowan, of Hamilton, at a cost of $113.

Total expenditure for fiscal year 1913-14, $68,944.80.

Dredging.

On 2nd April last, authority was given to have the departmental dredges *No. 105* and *No. 117* resume work in front of the Oliver Plow Works.

Work was resumed by *No. 105* on the 26th May and carried on till the 16th August, when she was ordered to Bowmanville. *No. 117* or *Quebec*, worked at the Government wharf, making a cut 900 feet long by 40 wide and 18 feet deep, and in so doing removed 12,480 cubic yards, scow measure.

No. 105 removed some 34,230 cubic yards, and *No. 117*, 309,715 cubic yards at the Oliver Plow Works.

The work at the Oliver Plow Works consisted in dredging an approach to their wharf, 2,700 feet long to a depth of 18 feet below zero.

The channel at present is 300 feet wide in front of the wharf, and the east and west arms of the approach there to have a width of 200 feet.

HAWKESTONE.

Hawkestone, county of Simcoe, is situated on the north shore of Lake Simcoe, 14 miles east of Barrie, on the G. T. Ry.

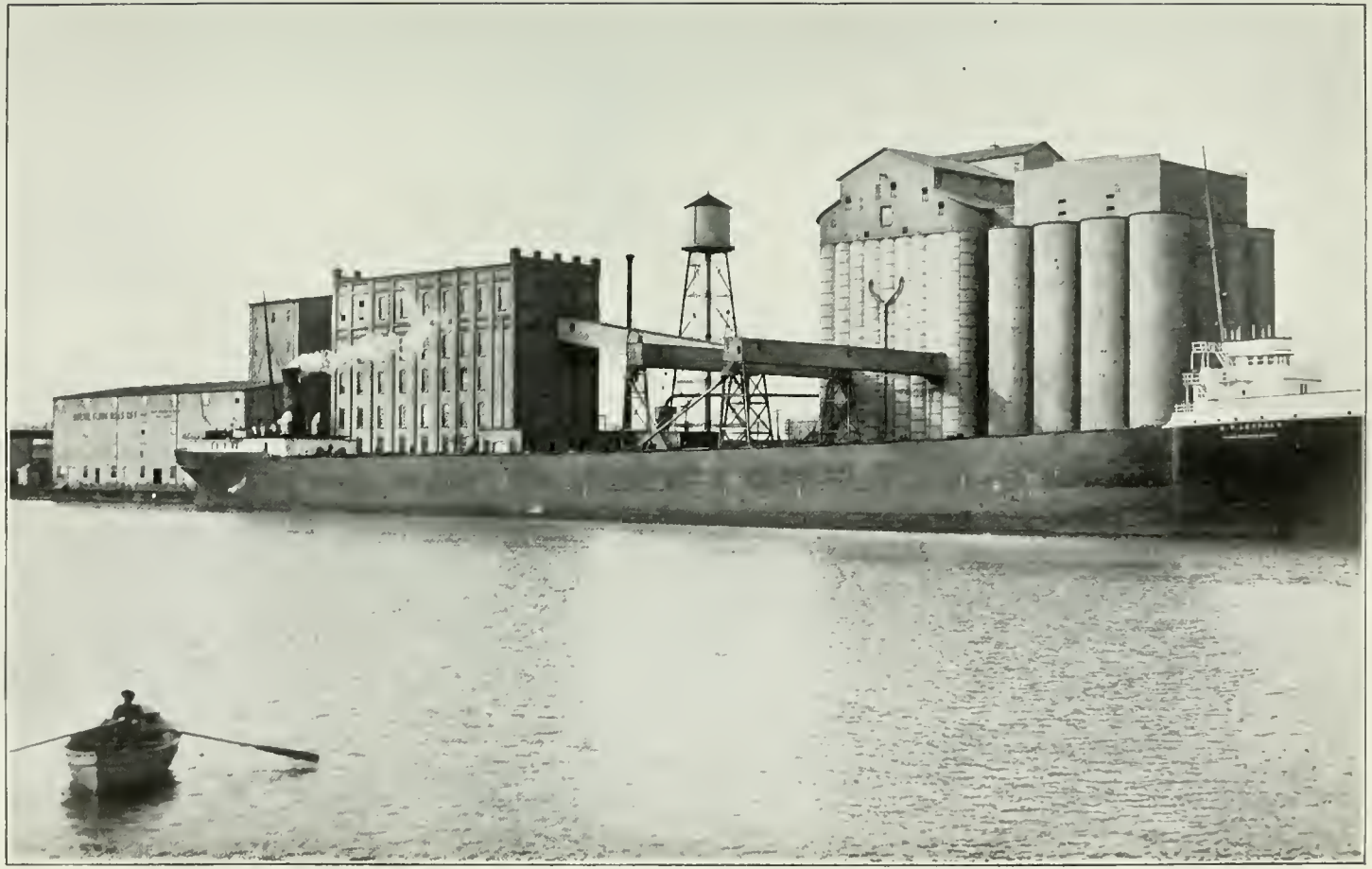
Authority was given to expend the sum of $75 in wharf repairs by day labour, and work was carried on from the 1st to 14th August.

The work consisted in repairing the stone approach.

Total expenditure for fiscal year 1913-14, $86.70.

Mission River. Looking west from Seamen-Kent dock.

Mission River. Looking east from starch works.



Ogilvie's elevator and mill.

Kaministiquia River opposite C. P. R. coal docks.

HEAD RIVER.

Head river, Victoria county, having its head waters in Youngs lake and flowing thence in a westerly direction enters the Severn river.

Authority was given to expend the sum of $1,700 in improvements by day labour, and work was commenced 3rd September and completed 31st December.

The work consists in the removal of the natural dam, 50 by 129 feet with an average cut of 2½ feet; the construction of a ditch 310 by 13 feet with an average depth of cut of 2½ feet; the removal of natural rock dam 50 by 18 feet with 3 feet average cut; the cleaning of the river bed for a length of 3,960 and 2,200 feet and the cleaning of Young's creek for a length of 750 feet; the removal of a rocky obstruction 60 by 80 feet, average cut 2½ feet deep, also a rock cut 40 by 10 by 1½ feet and the removal of two rocky points each 6 by 4 feet; the removal of rock obstruction in midstream 8 feet square by 4 feet deep; the removal of rock 70 by 24 by 3 feet average cut, and the removal of two shoals 16 by 8 by 1¾ feet each; the removal of rock 16 by 6 by 3½ feet average cut; cleaning up the side of the river from D to forks of river at E and up the river to first side road on both sides of stream; making a rock cut about 300 yards below B 16 feet across stream, 18 feet with stream with average cut of 6 feet, also a rock cut about 50 feet below first rock cut, 35 feet across stream, 22 feet with stream and average depth of 2 feet.

Total expenditure for fiscal year 1913-14, $1,699.97.

HELEN'S BAY.

Helen's bay is a part of the north channel of Lake Huron, situated in front of the township of Burpee, on the Manitoulin island, about 12 miles westerly from Gore Bay. The locality is fairly well settled with a population of about 100, and the trade is entirely in livestock and farm produce.

The object of the work is to provide a public landing wharf for the convenience and accommodation of the surrounding inhabitants in shipping their products to market. Previous to this, all their produce had to be teamed to Gore Bay.

Instructions were given on 10th of June, 1913, to prepare contract plans and specifications in connection with the appropriation by the last session of Parliament of the sum of $5,000, for the construction, by contract work, of a public landing wharf at this place. Later on, permission was received on 17th of December, 1913, to have the work done by day labour.

Work was commenced on the 20th of January and was completed on the 31st of March, 1914. The work consisted of a crib wharf 116 feet long by 16 feet wide, connected to the shore by a stone approach 135 feet long by 12 feet wide, and a warehouse 40 feet long by 18 feet wide was built with a crib-work foundation. In the construction of this wharf and warehouse 11,104 lineal feet of logs, 9,783 lbs. of iron and nails, 27,328 feet b.m. of lumber and 12,000 shingles were used, involving an expenditure of $3,121.06.

HILTON.

Dredging.

This is a village situated on the northerly side of St. Joseph island in the north channel of Lake Huron and is distant about 35 miles south-easterly from Sault Ste. Marie, containing a population of about 200. The country side surrounding is, for many miles, productive and well settled. Since this is an island port, there is a fairly large water-borne traffic. The several passenger and freight boats of the Northern

Navigation Company and the Dominion Transportation Company which route through the north channel of Lake Huron from Midland, Collingwood, Owen Sound and Parry Sound to Sault Ste. Marie, make this a port of call, and in addition two medium sized steamboats, namely, the *City of Chatham* and the *Michipicoten*, make round trips daily between Bruce Mines and other St. Mary's River points to Sault Ste. Marie.

These boats have been accustomed to land against the outer face of the wharf which is somewhat exposed, and it was thought a basin could be dredged to make a harbour for their protection and for several tugs and small boats which make it their headquarters.

On the 11th of July, 1913, an Order in Council was passed giving authority for the awarding of a contract to The Soo Dredging & Construction Company, Limited, of Sault Ste. Marie, Ontario, to perform certain dredging at the rate of 32 cents per cubic yard, place measurement, for which $1,760 was authorized to be expended.

Work was begun on the 23rd of September, 1913, and it was completed on the 24th of October. During this period, 2,132 cubic yards of silt were dredged and seowed away, for which the Soo Dredging & Construction Company was paid the sum of $682.24.

HONEY HARBOUR.

Honey harbour, located in the county of Simcoe, township of Baxter, a locality largely patronized by summer tourists. The route through Duff's channel is largely used by gasoline launches.

The object of doing the work was for the purpose of improvement to navigation for small boats, by widening and deepening the channel.

On June 21, 1913, authority was given to the Canadian Dredging Company to dredge at Duff's channel and work was begun June 23, 1913, and completed July 3.

The work involved the removal of 7,100 cubic yards class "B" material, at a rate of 36½ cents per cubic yard.

Total expenditure for fiscal year 1913-14, $2,634.50.

HUNTSVILLE.

Huntsville, district of Parry Sound, is situated on the Northern division of the Grand Trunk Railway; population 2,000. It is the headquarters of the Huntsville and Lake of Bays Navigation Company, who operate a line of boats between Huntsville and Baysville. This route is patronized by a large tourist traffic which is increasing annually. The principal industries are one large tannery and two lumber mills.

On June 19th, 1913, authority was given to expend the sum of $1,500 in certain wharf improvements, consisting of a shelter 75 feet long by 16 feet in width, the sodding of the slope of the esplanade approach and furnishing and erecting, in place, ten ornamental iron posts for electric lighting.

On June 18th, 1913, work was begun and continued up to July 31st, 1913.

Total expenditure to end of fiscal year 1913-14 is $1,135.61.

JACKFISH.

Jackfish, district of Thunder Bay and Rainy River, population, 200, is situated on the north shore of Lake Superior, 150 miles east of Port Arthur. It is on the main line of the Canadian Pacific Railway, who use it as a coaling base. Some fishing and lumbering are also carried on.

An examination, re a proposed breakwater at Jackfish, was made and a report submitted April 21st, 1913. The estimated cost was $45,000.

An examination having been made, a report and estimate on a proposed wharf was submitted March 19th, 1914. As the only available wharf is owned by the C. P. Ry., it was recommended that a wharf 150 feet long with an "L" at the outer end, be constructed at an approximate cost of $5,000.

KAGAWONG.

Kagawong is situated on the north shore of Manitoulin island, about 12 miles easterly from Gore Bay, and has a population of about 200 people. The surrounding country is a thickly populated and prosperous farming country and the trade consists of the importation of farm machinery and general merchandise and the shipping of livestock, some 3,000 head per annum, farm produce, timber and fish. All steamboat lines routeing through the north channel of Lake Huron call regularly. It is also a tourist resort.

The object of the work was to provide a public landing wharf; as Kagawong is on an island all shipping is by water which has been carried on over private wharfs.

Instructions were given on 10th of June, 1913, to prepare contract plans and specifications in connection with the appropriation by the last session of Parliament of the sum of $5,600.

Plans showing a concrete wharf on a pile substructure in "L" shape, one section being 100 feet by 20 feet and the other 100 feet by 40 feet, with a stone roadway approach 100 feet long by 20 feet wide, were made, but, owing to a delay in obtaining the conveyance of the necessary site, no work was done during this fiscal year.

KAWARTHA PARK.

Kawartha Park, county of Peterborough, is located on Clear lake and is a semi-private summer resort for about 300 people.

Authority was given to expend the sum of $1,000 for the construction of a wharf by day labour, and work was commenced 1st October and completed 29th November.

The work consisted in constructing a wharf having cribwork substructure and concrete superstructure for a length of 28 feet and a width of 14 feet connected to the shore by a stone approach 40 feet long by 8 feet wide on top.

Total expenditure for fiscal year 1913-14, $955.55.

KEMPENFELDT BAY.

Kempenfeldt Bay, county of Simcoe, is a summer resort on Lake Simcoe, about 6½ miles east of Barrie.

Authority was given to expend the sum of $10,500 on the completion of the wharf, and on the 20th September, 1912, a contract was awarded to Mr. J. O. Roddick, of Toronto, for the sum of $9,783.13, and the work was commenced 20th January, 1913, and completed 10th October.

The work consisted in the construction of a cribwork wharf 80 feet long by 20 feet wide with an "L" at the outer end 50 feet by 20 feet, and a stone approach 220 feet by 20 feet.

Authority was also given to have a piece of boiler plate placed across the outer end of the wharf. This was done by the contractor.

Total expenditure for fiscal year 1913-14, $1,442.43.

KENORA.

Kenora, District of Thunder Bay and Rainy River, is a town of 6,000 inhabitants situated on the north end of the Lake of the Woods, and is a divisional point on the main line of the Canadian Pacific Railway. It is the centre of a large lumbering industry and is a tourist and summer resort of importance.

To take care of the latter traffic, a new wharf was needed. An examination and report was made on May 13, 1913, and plans and specifications were sent to the department on June 19, 1913.

A bulk sum contract was let to Fred Gilbert, Esq., of Kenora, for $7,500.

The work was started on September 6 and completed December 3, 1913.

The work as completed consists of a pile wharf 275 feet long and 24 feet wide having a "T" on the outer end 83 feet long and 30 feet wide, the whole structure is close faced on all sides to 4 feet, 6 inches below low water level. A shelter house was erected on the "T."

Arrangements have been made with the town of Kenora to install, serve and maintain 10 suitable lights on this wharf at a cost of approximately $33 each.

KENSINGTON.

Kensington is a summer resort, situated about 3 miles southerly from the Canadian Pacific railway station of Desbarats, and about 30 miles easterly from Sault Ste. Marie, on the north shore of Lake Huron. There is a considerable boat traffic in farm produce and live stock by local farmers, and the mail to St. Joseph island is transferred at this point. There is a daily steamboat service to Sault Ste. Marie. The population nearby numbers about 300.

Instructions were given on 10th of June, 1913, to prepare contract plans and specifications in connection with the appropriation by the last session of Parliament of the sum of $6,000, for the construction, by contract work, of a public wharf at this place.

The plans have been prepared and forwarded, but owing to the delay in obtaining the conveyance of the necessary site, no further action has been taken. There has been no expenditure.

Old Wharf.—Authority was given in June, 1913, to expend the sum of $450, by day labour, in effecting the necessary temporary repairs to the old wharf.

Work was commenced on the 1st of August, and was completed on the 21st of August, 1913. This wharf was in a dilapidated condition and the repairs consisted of replanking an area of the decking 60 feet long by 20 feet wide, and the replacing of deck supports where absolutely necessary, and in the performance of it some 18,000 feet b.m. of timber, and 800 pounds of iron were used at an expenditure of $468.57.

KILLARNEY.

Dredging.

This is a village having a population of about 400 and is situated about 25 miles easterly from Little Current, on the north shore of Georgian bay, and is a regular port of call for the local freight and passenger steamboats of the Northern Navigation Company, the Dominion Transportation Company, the steamer *Soo City,* and two or three lines of United States tourist boats, besides numerous fishing tugs, make it their headquarters. The shipping comprises the imports of general merchandise and the exports of about 300 tons of fish valued at about $50,000, and the total value of the trade would be upwards of $100,000.

The object of the work is to provide a passage through a shoal place in the channel, and the improvements extend over a distance of 1,700 feet, having a width of 150 feet and a grade depth of 16 feet below standard low water level.

On July 19, 1913, authority was given to perform certain dredging for which a contract had been awarded to the C. S. Boone Dredging and Construction Company, of Toronto, Ontario, at 32 cents per cubic yard, place measurement, and for which $8,000 was authorized to be expended.

Work was commenced on September 9 and carried on till 20th October, 1913, when, owing to a serious breakdown of the dredge *Kingsford*, work was closed for the season. During this period, 17,247 cubic yards of sand and clay were dredged and scowed away a distance of about a mile.

The total expenditure during the year 1913, was $6,256.46.

KINCARDINE.

During the past season, a total of 14,000½ cubic yards, scow measurement, of silt, light sand and clay were removed by dredging at this port from the entrance to channel, from the channel between piers and from the turning basin

The object of this work was to remove the sand bar which annually forms at this outer entrance to channel, to maintain a safe depth for navigation between piers, and to enlarge the turning basin.

The dimensions of the completed work were as follows:—

Outer entrance to channel—400 feet long, 75 feet wide and 16 feet deep, below L.W.L.

Channel between piers—800 feet long, 50 feet wide and 14 feet deep, below L.W.L.

Turning basin—An area of approximately 24,000 square feet deepened to 12 feet below L.W.L.

The work was done by the Marlton Dredging Co., of Goderich, with the dredge ***Goderich,*** between May 29 and June 17, under authority dated May 23, 1913. The cost of this work was $4,957.18.

KINGSVILLE.

Kingsville, Essex county, is a thriving town situated on the north shore of Lake Erie, in the county of Essex, about 25 miles east of the mouth of the Detroit river, and on the line of the Père Marquette railway. An electric railway line also runs through this place, between Windsor and Leamington.

Population, about 2,000. It is a port of entry and a harbour of refuge. It is the centre of a very rich farming district, and is the principal point from which the steamers, carrying freight and passengers, run regularly to Pelee Island, Sandusky and Windsor. A large fishing trade is carried on at this point. The main traffic over the docks is lumber, fence posts, farm produce, including live stock and general building materials. The traffic over docks is steadily increasing. Maximum draught that vessels can draw entering this port is 14 feet at low stage of water.

During the season of 1912, some 179 vessels with tonnage of 25,741 tons arrived at this port, and the customs duties during the fiscal year 1912-13 amounted to $7,822.89.

At the last session of Parliament, the sum of $2,300 was voted for repairs to piers, and on the 10th of June last authority was received to expend this grant.

Operations were commenced on August 1, and were completed on the 27th December, 1913.

The work performed was as follows:—

East Landing Pier.

Thirty-foot long 1¼-inch iron tie rods were placed at different points in pier to tie the two faces of the pier together; four hundred and fifty-eight feet of 8-inch by 8-inch white oak waling was placed; considerable portion of the flooring renewed with 3-inch white oak; an extension of 15 feet by 40 feet to warehouse was built, including pile foundation for same. The addition to warehouse and the old portion were given three coats of paint.

West Pier.

General repairs were made to decking of this pier.

In the execution of the above work, 16,980 feet b.m. white oak, 208 lineal feet of piles, 8,155 feet b.m. pine and other timber, and 6,900 pounds of iron were used.

Dredging.

Under authority dated July 9th last an extension to the contract with Mr. W. E. Hardison, of Welland, Ontario, for dredging was authorized. The price paid was 15 cents per cubic yard, scow measurement, for all material within the harbour, to form a basin 500 feet long by 300 wide, and 25 cents per yard, scow measurement, for material removed from outer harbour and entrance to same.

Operations were commenced on July 21 and completed on September 19, 1913. During this time, 5,050⅔ yards, scow measurement, of silt, sand and clay were removed from outer entrance channel, and 19,965⅓ yards, scow measurement, of similar material were removed from the inner harbour. A safe depth of 15 feet was obtained.

The total expenditure for the fiscal year 1913-14, is $6,705.91.

LANCASTER.

The town of Lancaster, situated in the county of Glengarry, 54 miles from Montreal, has a population of about 1,000; it is a station on the Grand Trunk railway.

South Lancaster is situated 1½ mile south of Lancaster, on the north shore of Lake St. Francis.

A wharf was constructed in 1901. It consisted of a head-block 84 feet in length by a width of 72 feet, on piles, and a solid stone embankment, 356 feet long, from shore to head-block, by a width of 20 feet at the top, with slope 1 in 1 on both sides; a storehouse and waiting-room was erected thereon.

The entire superstructure was so decayed that cap pieces over five bents, corbels, and the floor stringers, for 50 feet by 84 feet, were entirely replaced and covered with a new 3-inch flooring.

The front face and oak walings were also renewed, making nearly a completeely new wharf over the old piling.

This work was performed by day labour.

Total expenditure, $1,582.

LAKEPORT.

Lakeport, Northumberland county, is the port of Colborne, and is situated in the west riding of the county 14 miles east of Cobourg, and on the north shore of Lake Ontario.

Work of repairs was carried on from the 3rd to 30th May, and consisted in repairing the decking of the wharf, renewing the stone approach and repairing the warehouse where urgently required.

Total expenditure for fiscal year 1913-14, $146.99.

LA PASSE.

La Passe, North Renfrew county, is located on the Ottawa river, some 70 miles west of Ottawa. There is a ferry-boat service to Fort Coulonge, Que., on the C. P. Ry., Waltham branch.

Construction of the wharf which was started early in March, 1913, and discontinued March 31st, proceeded with July 2-16.

About 50 per cent of the structure was completed last March and about half of the work remaining was done in July at a cost of $283.63. Owing to the scarcity of labour, the balance of the work to complete the wharf was given to Mr. O. Labine

for the lump sum of $165 for labour only. A further amount of $33.12 was spent on materials and inspection services.

The wharf, which was finally completed in October, consists of a pier 40 by 40 feet and extends out 119 feet into the Ottawa river. It is built to an elevation 10 feet above O.L.W.L., and has three landing stages and two approaches.

Expenditure to March 31:—	
Labour	$391 74
Materials	90 01
Total	$481 75

LATCHFORD DAM.

The work of deepening the channel of the Montreal river at Pork rapids, 8 miles above Latchford, was begun November 3rd, and discontinued November 27th.

The time, up to November 8, was occupied in repairing camps and placing plant on site. A bridge was then constructed from the shore to the island in the river where the work of cleaning was done. This was completed November 11th, and actual excavation started on the 12th. Some surface boulders were removed and the rest of the work consisted of blowing out hardpan, gravel and clay with dynamite. As most of this work was under water, considerable difficulty was experienced in doing it efficiently.

Up to November 27th, the channel for a distance of 150 feet was cleaned to allow boats drawing up to 5 feet to navigate when water is backed by the Latchford dam. Approximately 200 cubic yards of excavation were taken out.

Expenditure to March 31:—	
Labour	$470 83
Supplies, etc.	703 25
Total	$1,264 08

LEAMINGTON.

Leamington, Essex county, is a prosperous town situated on the north shore of Lake Erie, in the county of Essex, about 37 miles from the city of Windsor, on the lines of the Père Marquette and Michigan Central railways. Population, about 2,500. It is the centre of a rich fruit and vegetable raising district. A number of oil wells are being worked in the vicinity of Leamington. It is a port of entry and also a port of call for a steamboat line running between Windsor and Pelee island. Deep draught tugs also carry considerable freight from this point to Pelee island and other adjoining places. Maximum draught of vessels utilizing pier at this point is about 11 feet. The principal manufactories are: Basket factory, planing mill, pickle factory, tobacco factory, cement works and canning factory. During the season 1912, 127 vessels arrived at this port with tonnage of 6,599 tons, and the custom duties collected during the fiscal year 1912-13, amounted to $41,638.30.

At the last session of Parliament, the sum of $1,400 was voted for repairs to piers and on the 10th of June last, authority was received to proceed with the work.

Work done consisted of the reconstruction of five pile bents at inner end of pier together with decking on same; renewal of planking and partial renewal of stringers for a length of one hundred feet; one hundred feet of guard rail renewed as also minor repairs were made to decking.

In the execution of the above work, approximately 17,448 feet, b.m., of timber, 556 pounds of iron and 741 lineal feet of piling were used.

Total expenditure for the fiscal year 1913-14, $1,403.47.

LION'S HEAD.

Lion's Head, county of Bruce, is a village of some 600 inhabitants, situated on the west shore of the Georgian bay, 22 miles north of Wiarton. There is a very large saw-mill in operation at this place and the output is large. It is also a harbour of refuge.

Authority was given to expend the sum of $3,600 in wharf improvements by day labour, and work was commenced 1st August and completed the 16th January.

The work done consisted in the construction of a wharf of close sheet-piling, 78 feet in length, also a length of 40 feet of piling, the latter to fill in the panels of main piles previously driven.

Total expenditure for fiscal year 1913-14, $3,600.

LITTLE CURRENT.

Little Current is a town of about 1,500 people, situated on the Manitoulin island on a narrow channel of the same name, connecting Georgian bay and the north channel of Lake Huron. It has two saw-mills which cut between 40 and 50 million feet of lumber annually. Agriculture is prospering in the adjoining townships. It is the most important town on the island and is the port for practically the whole district. The shipping is all water-borne and consists, exclusive of lumber, of some 10,000 tons per annum of coal, merchandise, farm produce, live stock, fish, etc.

Authority was given on 10th of June, 1913, to expend the sum of $2,000, by day labour, for the construction of a public wharf.

On account of the intention of the residents of this place to obtain a general scheme of water-front development, work has been deferred. In the meantime, a complete survey of the property involved is being made. There has been no expenditure.

Dredging.

The object of the work is to provide approaches to the wharves of the A. E. Ry., for deep draught vessels and to widen the existing channel. When the whole improvements proposed to this channel are completed, it is expected that practically all boats including the large freighters plying between Lake Superior and Georgian bay ports will adopt this route which will be practically the same length, but much more protected than the open Lake Huron route, and it will constitute a necessary link in the proposed Georgian Bay canal route.

On August 21, 1913, an Order in Council was passed authorizing the acceptance of the tender of the Soo Dredging and Construction Company, Ltd., of Sault Ste. Marie, Ont., for the dredging of 23,500 cubic yards of rock, place measurement, at the rate of $2.90 per cubic yard.

Work was commenced on September 1, 1913, and was closed down on 15th of December, for the season. The area under contract to be dredged consisted of a section lying in front of the A. E. Ry. Co's coal wharf, 400 feet long, with an average width of 150 feet, to be dredged to a depth of 22 feet, below standard low water level. During this period, 19,837 cubic yards were removed; of this amount 17,883⅓ yards were castover the A. E. Ry. Co.'s wharves into the filling behind.

The total expenditure was $58,613.82.

LITTLE GRASSY RIVER.

The Little Grassy river, district of Thunder Bay and Rainy River, empties into the south end of the Lake of the Woods. There are scattered settlements with a population of three or four hundred people within two miles of the river. This region is

good farming country and some lumbering is carried on. A good road to the town of Sleemans on the Canadian Northern railway, some 17 miles distant, is the present means of communication.

As a result of the petition from the inhabitants of the Rainy River district, asking that certain dredging be done to enable vessels to enter the Little Grassy river from the Lake of the Woods, an examination was made, the necessary soundings, borings, etc., taken, and a report submitted on March 6, 1914.

The proposed work consists of dredging a channel 3,000 feet long, 100 feet wide and 11 feet deep, through a sand bar at the mouth of the river. This would make good navigation for vessels drawing up to the 9 feet, which includes practically everything on these waters. The estimated yardage is 69,000 and the cost $34,000.

LONG LAKE AND DRIFTWOOD CREEK.

This part of the south branch of the Blanche river in Nipissing district is located above Charlton. It is the only route of transportation available for an increasing number of settlers.

Work of procuring plant and placing on site of work was begun on July 1.

During July, the section from Charlton wharf to the foot of Long lake and through the narrows was cleared. Some 1,000 stumps were pulled and all brush and snags were removed to high water mark. Two boxes of dynamite were used. The total expenditure for supplies and labour amounted to $1,609.88.

The camp and plant were moved up the river to Driftwood creek on August 1. In this section, some 200 stumps were pulled out, two large jams of driftwood aggregating 800 feet in length by about 50 feet wide, were removed and piled on shore, a large number of boulders were taken from channel, one sand bar about 50 feet long was removed and all brush and dead trees were cleared away. This work was carried on to about a mile and a half above the falls. The falls, located about 1½ miles from the outlet, drop some 18 feet in rapids along a distance of about 200 feet. Pointers and other small craft are portaged around, a distance of 500 feet, and settlers are said to have used the improved creek during the past season. The average depth of water in this section is now about 4 feet. Five boxes of dynamite were used. The total expenditure for supplies and labour amount to $1,614.12.

On September 11, the plant was moved down the river again to within five miles of Charlton, in order that the section from Long lake to Charlton wharf might be put in better condition. This portion of the channel was more thoroughly cleaned than was at first attempted, and large quantities of driftwood and brush were taken out. Work was discontinued shortly after the first of October and the plant stored. The total expenditure on this last portion of the work amounted to $700.65.

Expenditure to March 31:—

Charlton wharf to Long lake and through narrows	$2,310 53
Driftwood creek	1,614 12
Caretaking of plant	17 10
Total	$3,941 75

LONG SAULT RAPIDS.

The Long Sault rapids, district of Thunder Bay and Rainy River, is on the Rainy river some 40 miles from the mouth and 45 miles below or west of the town of Fort Frances. The Rainy river forms the international boundary between the province of Ontario, Canada, and the state of Minnesota, U.S.A.

A petition having been transmitted to the department for the construction of a lock and dam at the foot of the Long Sault rapids in the interests of navigation, an examination was made and a report submitted February 20, 1914.

It was reported that a lock having a length between gates of 210 feet, a width of 60 feet and a lift of 12 feet, with dam, necessary approaches, embankments, excavations, etc., could be built for approximately $525,000, and that such a structure would meet all present and future requirements.

It was pointed out that the question was complicated by the international nature of the work; it was recommended also that no additional steps be taken until the completion of a comprehensive survey of the Rainy river by the department, as this survey, already under way, would add greatly to the information necessary to properly plan and design the work.

L'ORIGNAL.

L'Orignal, a village in Prescott county with a population of 1,300, is located on the south shore of the Ottawa river, 54 miles below Ottawa, and on the C.N.Ry.

The handrailing on approach and landing-head was painted. Six new fenders were placed at the upstream landing of wharf. Work was done July 9-23 and August 25-September 10.

Expenditure to March 31:—

Labour	$211 84
Material	268 36
Total	$480 20

LORRAINE.

Lorraine, in Nipissing district, is located on the west shore of Lake Timiskaming some 10 miles south of Haileybury, and is an outlet for a growing farming district.

Construction of a cribwork wharf at Lorraine was begun August 18 and completed October 17.

The completed wharf extends out some 82 feet at a height of 4½ feet above R.W.S. at elevation 587, and consists of landing-head 72 feet long by 32 feet wide, with two approaches, one at each end. The landing is composed of three cribs 32 feet by 16 feet, with two 12-foot spans. The cribwork approaches, each 26 feet long by 12 feet wide, have one crib 12 feet by 12 feet, with a 14-foot span. The stone approaches are 24 feet long by 12 feet wide. A warehouse 48 feet by 16 feet is built on posts between the approaches.

Expenditure to March 31:—

Labour	$2,178 78
Material	1,796 92
Total	$3,975 70

Dredging.

The departmental dredge *Queen* worked on Lake Timiskaming (July 31-August 2) providing grade at elevation 573·5 along the face of the new cribwork wharf, which was constructed last season.

Four hundred and eighty-one yards of clay, scow measure, were removed and spoiled in deep water a quarter of a mile distant.

MADAWASKA RIVER.

The Madawaska river, in South Renfrew county, flows in an easterly direction into the Ottawa river at Arnprior, and affords a 30-mile stretch of navigation to boats of shallow draught.

Construction of a small hydraulic dredging plant for dredging sand bars in the Madawaska river was begun August 5, and completed at the end of September, when the plant was put in operation.

Two scows were built at Barry's Bay, deck 30 feet long by 7 feet wide, with a depth of 3 feet and length on bottom of 24 feet. This work was done August 5-25.

A 6 by 6-inch sand dredging pump with a direct connected engine and a 20 H.P. boiler built to the Alberts specifications were placed on scows. The pump was fitted with a suction hose 14 feet long and a discharge pipe 80 feet long to discharge spoil on banks.

After some preliminary experimental work, dredging was started October 11, in the sand bar at the foot of Lake Kiminiski above Combermere. Up to November 6, a channel 425 feet long by 50 feet wide was dredged to a depth of 5 feet and some 2,000 cubic yards of sand taken out. The sand was spoiled to form training dyke along the bank about 50 feet from the centre of the channel, and brush with stone incorporated into same to prevent erosion.

A 7½ H. P. gasoline (Pickie) launch was purchased for $250 for towing scows and other service with the plant.

The plant has been hauled out and laid up at Barry's Bay.

Expenditure to March 31:—	
Labour	$1,317 40
Materials and supplies	2,313 02
Total	$3,630 42

MAGNET CHANNEL.

The Magnet channel, district of Thunder Bay and Rainy River, is an inside protected channel on the north shore of Lake Superior, some 40 miles east of Port Arthur. Early in October, 1913, an investigation was made and a report and estimate submitted on proposed improvements to this channel.

The work would comprise the removal of 4,500 cubic yards of boulders and would cost approximatively $12,000 to $15,000.

MANITOU RAPIDS.

The Manitou Rapids, district of Thunder Bay and Rainy River, are on the Rainy river some 50 miles from the mouth. A pier in the river, used to warp vessels up the rapids, having been damaged by fire, an investigation was made late in October, 1913, as to cost of repairs. This estimated cost was $200, and authority was given to proceed with the work. On account of ice conditions, it was impossible to do anything in the winter of 1913-14 and, a second investigation having been made, renewed authority was asked to proceed with this work at an expenditure of $400.

MARTIN'S ISLAND.

Martin's island, Kent county, is situated in Lake St. Clair, at the mouth of the Chenal Ecarte river.

At the last session of Parliament, the sum of one thousand ($1,000) dollars was voted for bank protection work at this point, and on the 10th June authority was received to expend the grant.

An arrangement was made with Mr. H. E. Doyle, of Chatham, for the supplying of all material and performance of the work at the rate of $6 per running foot of sheet piling completed.

The work was performed during the month of November last, and consisted of the construction of 154 running feet of sheet piling securely fastened to anchor piles in rear.

In the execution of the above work, approximately, 6,365 feet b.m. timber, 680 lineal feet of piling, and 1,110 pounds of iron were used.

Total expenditure during the fiscal year 1913-14, including inspection, is $978.50.

MEAFORD.

Meaford, county of Grey, is located on the Georgian bay, between Owen Sound and Collingwood. Five steamers make this a regular port of call. The industries include bricks, hardwood floors, mantle, foundry and machine shops, flour-mill, boxes, canning factory, furniture, wheel barrows, blankets and yarns, flooring, fruit evaporators, tannery, etc. Population, 3,000.

Authority was given to expend the sum of $4,000 in completing the harbour improvements, and on the 3rd April, 1912, a contract had been awarded to Mr. Gideon Kastner for the sum of $36,700.

This work was resumed on the 17th June and completed 15th July, and consisted in the placing of concrete superstructure on the 50-foot crib and bridging the space of 19 feet lying between the northerly end of the work performed last year on the easterly breakwater, and the southerly side of the north breakwater, with I-beams in concrete, thus completing his contract for the closing of the easterly entrance to the harbour, by the construction of a structure some 369 feet in length having cribwork substructure and concrete superstructure.

Instructions were issued to prepare contract plans and specifications for the extension of the revetment wall; tenders were called, and the work awarded to Messrs. Green & Woolrich on the 1st December last for the sum of $30,099.52, schedule prices.

This work consists in the construction of a revetment wall in two sections, one 160 feet in length and the other 320 feet in length, and was commenced in January last and is still in progress.

The work done to date consists in the driving of all the steel piling in the 150-foot section, also all the bearing piles for the concrete superstructure, and the anchor piles are now being driven but the 320-foot section has not yet been commenced. The work is progressing very satisfactorily.

Authority was given to expend the sum of $2,500 in repairs to the structures on the east and west sides of the harbour by day labour, and this work was commenced 25th August and completed 31st January, and consisted in the placing of waling and capping on the revetment wall on the east side of the harbour for a length of 900 feet, also the eastern pier of the outer harbour was provided with new decking, where necessary, on the timber portion of same. The western breakwater of the outer harbour was repaired by levelling up the depressions made during the severe storm of the 9th November last, and the spaces were filled with heavy stone.

Authority was also given to expend the sum of $1,900 in repairs to the structures by day labour, and this work was carried on from the 26th December till the 9th February, and consisted in repairs to the westerly end of the concrete breakwater which had settled some 14 inches during the storm of the 9th November last. The foundations were carefully examined by our diver, and concrete was placed where required to form a solid reinforcement to the structure.

Total expenditure for fiscal year 1913-14, $16,326.09.

Dredging.

On 16th May last, authority was given to have the departmental dredge perform certain dredging in the approaches and in the harbour, to a depth of 22 feet in the approaches and 20 feet inside.

In doing this work some 109,106 cubic yards, scow measurement, were removed.

The dredge commenced work on the 22nd May and suspended on the 10th June, then resumed work on the 31st August and completed same on the 30th September.

MICHIPICOTEN RIVER.

This wharf is at the mouth of the Michipicoten river and serves the residents of Mission Village which is situated about 1½ miles easterly on the river. The village contains about 100 people and their occupation is mostly mining and fishing. The river is not navigable. Michipicoten harbour is a village lying some 4½ miles westerly and is the terminal of the Algoma Central and Hudson Bay railway from which large quantities of iron ore from the Helen and Magpie mines are shipped by boat. There is a bi-weekly steamboat service at the Government wharf.

Authority was given on 21st of June, 1913, to expend the sum of $1,000, by day labour, to construct a warehouse on the Government wharf.

Work was commenced on the 14th of August and was completed on the 3rd of September, 1913. It consisted of the completion of a wooden warehouse, 20 feet wide by 26 feet long, and in the performance of the work some 10,000 feet b.m. of timber, 200 pounds of nails and 3 gallons of paint were used, at a total expenditure of $720.74.

MILLER'S RAPIDS.

Miller's rapids, district of Thunder Bay and Rainy River, are situated on the Winnipeg river, some 2 miles north of the town of Kenora. A resolution was submitted by the Board of Trade of Kenora asking for improvements at these rapids as navigation was difficult.

A report was submitted October 23, 1913, in which the removal of some 500 cubic yards of boulders at an approximate cost of $2,000 was recommended.

MONETVILLE.

Monetville is a small village at the west end of Lake Nipissing. A rapidly developing farming country surrounds it.

Parliament, at its last session, provided $1,500 for the construction of a pile wharf 48 by 72 feet with freight shed 30 by 48 feet and earth approach, to extend to contour 646, average width, 16 feet.

During the summer, while work was being carried on at the rock cuts, the material for the wharf was secured.

On September 19th, work was commenced with a gang of six men. The piles were driven, cut off and braced, and the 10 by 10 by 16-foot long pile-caps and stringers placed. Work was discontinued on October 16.

The total outlay is $1,497.95, divided as follows:—

Pay lists	$ 363 13
Material	1,124 82
Disbursements	10 00

Channel.

Monetville rock cuts are situated 4 and 3 miles, respectively, from the village of Monetville. The work is being executed in order that navigation may be carried on between Lake Nipissing points and Monetville and avoid the 4-mile haul.

Operations were commenced on July 7, with a hoist-runner, carpenter and six labourers. The work was carried on until September 18, when it was closed down, the appropriation having been expended.

The work accomplished during this period consisted of placing 2-ply glace booms and anchor piers in cut 2 and cleaning up 225 feet of cut 1, to grade 635·5 in middle half. It was expected that the remaining 40 feet of the cut could be cleaned up, but the frost during the previous winter, disintegrated the south side for a distance

of about 30 feet, to such an extent that it slid into the cut when blasting started. This material had to be removed and thus a considerable amount of money was expended for work which was not included in the estimate.

The total outlay is $1,496.66, divided as follows:—

Pay lists	$959 90
Supplies	483 40
Disbursements	53 30

MONTREAL RIVER.

Flat Rapids, in Nipissing district, is located on the Montreal river, 38 miles above Latchford and 15 miles below Elk Lake.

The work of deepening the channel of the Montreal river at Flat rapids was begun September 10 and discontinued October 31.

Up to September 19, work of repairing camps and transporting plant to site of improvements was carried on. From this date till October 16 some 50 cubic yards of surface boulders were removed from the channel with the aid of a stump-puller. These boulders ran in size up to one-half yard. When all the boulders were removed from the surface, dynamite was used to remove clay, hardpan and gravel underneath to give a depth of about 7 feet. It would be difficult to estimate the quantity of excavation done in this way. Fifty-one cases of dynamite were used.

The channel, it is believed, is now in good condition and navigable for boats drawing up to 6 feet.

Expenditure to March 31:—

Labour	$ 911 24
Supplies	881 93
Total	$1,793 17

MUSKOKA NARROWS.

The Muskoka Narrows are situated about 2½ miles from Gravenhurst and is the only channel connecting Muskoka bay, where Gravenhurst is situated, with Muskoka lake.

The Muskoka Lakes Navigation and Hotel Company, with headquarters at Gravenhurst, the southern terminus of the route, operate a large fleet of boats during the season of navigation, all of which pass through the Muskoka narrows.

The narrows are used by the Mickle-Dyment Lumber Company of Gravenhurst for the passage of logs to their mill, and is used by innumerable launches and supply boats. It is estimated that from 35,000 to 40,000 tourists pass through Gravenhurst during the season of navigation.

It was intended originally to place glance booms on both sides of the narrows, as a guide for boats, and a sum of $3,000 was authorized to be expended for that purpose. At a later date it was decided to widen and deepen the present channel by the removal of rock to give an average depth of 10 feet of water at low water, and to increase the width from 75 to 114 feet.

This work involved the removal of 1,500 cubic yards of class "A" material.

On June 12, 1913, authority was given to proceed with the work by day labour, and the plant owned by the Ontario Public Works Department was secured without remuneration, to carry on the work.

On August 1, 1913, work was begun and continued until December 8.

An approximate quantity of 1,000 cubic yards of rock was removed at a total cost of $4,473.13.

NAPANEE.

Napanee, county of Lennox and Addington, is situated on the Napanee river, some 6 miles from where the river empties into the bay of Quinte. A number of manufactures are located at this place, and a large quantity of coal is imported. Population, 3,200.

On May 2 last, authority was given to expend the sum of $13,300 in dredging at this place, as on the 24th July, 1912, a contract had been awarded to Mr. W. E. Phin for the improvements in the river at 19 cents per cubic yard, class "B."

Work was resumed on the 9th June and completed 29th September, and consisted in dredging a channel in the river from the mouth to the town of Napanee, a distance of 7 miles, with a width of 75 feet, except at curves which are wider, all to a depth of 11 feet below zero.

On July 5, authority was given to construct a turning basin at the town and to increase the width of the channel at certain points where the river turned abruptly.

During this season, the dredge removed some 56,448 cubic yards, class "B," place measurement.

Total expenditure for fiscal year, 1913-14, $11,639.33.

NEWCASTLE.

Newcastle, county of Durham, is situated on the north shore of Lake Ontario, 47 miles east of Toronto. It contains large woolen mills, a tannery and implement factory. Population, 1,500.

Instructions were issued to prepare contract plans and specifications for the renewal of the eastern pier, tenders were called for, but, up to date, the work has not been awarded.

The work will consist in the construction of a new pier head on the east pier, composed of solid cribwork 36 feet wide by 400 feet long.

NEW LISKEARD.

New Liskeard, a town in Nipissing district with a population of 2,100, is located at the mouth of the Wahbi river, on Lake Timiskaming.

On December 9, 1912, a contract was let to Messrs. McCool & Moffatt for the construction of a wharf for the sum of $10,985. Work was begun about March 15 and proceeded until April 22. About May 20, construction was started again and continued until July 22, when it was discontinued until August 5. After this date, work continued intermittently till December 22, when it was completed. Extras of $134.08 were paid for clearing site of brush and riprap work to protect outer end of approach fill.

The wharf is of pilework. It extends out some 700 feet, drawing 18 feet at the head, 202 feet long and built to a height of 5 feet above R.W.S. of Lake Timiskaming. The landing-head is 60 feet wide and is provided with a freight shed 72 feet long by 24 feet wide and 12-foot walls. The pilework approach is 62 feet long by 33 feet wide, and the graded approach is 585 feet long by 14 feet wide on top.

The old wharf was repaired temporarily to sustain the traffic of 1913, at a cost of $99.12.

Construction of a pilework breakwater was begun January 24, and nearly completed March 31. The completed structure, which is 300 feet from face of new wharf, is 344 feet long at the back, 302 feet long at the face, and 22 feet wide. It is built to a height of 15½ feet at the back sloping to 1½ feet at the face.

The piles are driven at 7-foot centres throughout and the 10 by 10-inch pile-caps are spiked and shackled to the piles. The structure is sheeted with 6 by 8-inch timber.

During the winter of 1914, the same force of men demolished the old wharf, using some of the materials in the breakwater construction and to build about 950 lineal feet of under surface waling to prevent excessive erosion of the approach fill. The new wharf, which had been damaged by the action of the early ice, was repaired and considerably strengthened, several piles being replaced.

Expenditure to March 31:—

Estimates paid contractors	$9,335 00
Extras	134 08
Salary of inspector	594 67
Repairs to old wharf (traffic 1913)	99 12
Breakwater and other harbour improvements	7,788 57
Total	$17,951 44

Dredging.

The departmental dredge *Queen* worked on Lake Timiskaming (May 26-June 15) improving the basin in front of the new wharf. This basin now extends out some 250 feet from inside of wharf, and is some 375 feet long across the face, with a grade elevation 573·5, except the winter berth at south end of the wharf, which is at elevation 568·5.

Four thousand six hundred and twenty-five yards clay, scow measure, were removed and spoiled in deep water three-quarters of a mile distant.

NORTH BAY.

North Bay, a town of 8,000, in the district of Nipissing, is situated on the north shore of Lake Nipissing. It is a divisional point on the main line of the C.P.Ry., a terminus of the G.T.Ry., and T. & N.O.Ry., and a station on the C.N.Ry., now under construction. An extensive tourist traffic is handled by boat, from there to the French river, during the season. There is also a limited freight traffic.

A contract was entered into with Mr. Ed. Conroy, of Peterborough, in December, 1911, for the construction of a pilework breakwater at North Bay for $13,900. Work commenced in July and stopped in October when all the piles were driven. Work was continued from the latter part of December on the ice, and was 54 per cent completed on the 31st of March, 1913.

Work was carried on by contractor until April 14, when the ice became unsafe. The structure, which was only 50 per cent braced and 9 per cent sheeted, was 75 per cent demolished by ice shove, April 18 and 19. Some of the loose timber was salvaged and piled on shore. Expenditure to March 31, 1914, $315.58.

The structure was to have been 22 feet wide and average 647 feet long in the form of a circular ring, having an outer radius of 303 feet and consisting of pile bents thoroughly sway-braced longitudinally and transversely both above and below water line, and sheeted from 5 feet below proposed H. W. S. (elevation 643 to a height some 8 feet above E.H.W.L. (elevation 645·5).

Owing to unsatisfactory progress with this work, an Order in Council was passed on the 22nd August, 1913, taking out of the hands of Mr. Edward Conroy the contract, and forfeiting the security deposit of $1,300 and the drawback of $770 held and retained in this connection.

Plans and specifications were prepared during summer 1913, to rebuild breakwater along different lines, incorporating standing portion of original structure. Later it was decided that that work would not be undertaken.

Instructions were issued to remove standing portion of structure. Work was started March 9. The portion, consisting of 72 piles, bracing, pile-caps, sheathing, shackles, bolts, &c., was completely removed and the resulting material piled on shore, at cost of $410. This is available for other work.

Out of the appropriation, $5,000 was also authorized for repairs to North Bay wharf. The wharf consists of a pilework and cribwork approach 25 by 1,031 feet long and a cribwork landing head 25 by 226 feet long. Owing to the condition of the wharf, repairs had to be started on short notice, during time at which navigation is heaviest. This made the cost of repairs somewhat higher than anticipated. The work consisted of taking up the old double and laying a new 4-inch floor; taking up and relaying the 10 by 10 continuous capping; renewing several stringers and crib-timbers, as well as levelling up the floor. Work started on August 19, and was completed on November 12, at a cost of $4,633.23.

Total expenditure during fiscal year, $5,358.81.

Dredging.

The departmental dredge *Mattawa* worked on Lake Nipissing (September 1-19). 1,550 yards of piles, sand, etc. (scow measure), were removed

ORILLIA.

Orillia, township of South Orillia, county of Simcoe, is a very popular summer resort. The Grand Trunk and Canadian Pacific railways have stations and yards in the town, there is a very large amount of freight handled per annum. Among other industries, there is a wagon and automobile factory, box factory and many others of a large capacity chiefly operated by electricity generated at Ragged rapids on the Severn river. This tourist traffic between Orillia and all points on Lake Simcoe is very large and increasing rapidly.

On September 4, 1913, a contract was awarded to David Conroy, Esq., of Peterborough, for the construction of a wharf and shelter for the sum of $10,874. The wharf consists of a stone approach 15 feet long and 22 feet wide, and a wharf 200 feet in length by 22 feet in width, with wooden substructure and concrete superstructure. The wharf is subdivided into four openings, each 20 feet in length, 4 cribs each 20 feet in length, and an outer crib 40 feet in length. The shelter is 18 feet in length, 14 feet in width and provided with benches.

Work was begun October 22, 1912, and continued up to October 31, when operations were suspended for the season.

Work was resumed March 1, 1913, and completed September 30.

The tamarac capping as contemplated has not been placed.

On August 25, 1913, a sum of $104 was authorized in addition to the parliamentary vote of $9,600 and this was again supplemented by a further authorization of $96.10.

Amount paid to D. Conroy	$8,509 00
Inspection	317 95
Life chain	56 10
Total expenditure for 1913-14, is	$8,883 05

Park Wharf.

The wharf at Couchiching park has a concrete deck, which was not built to pass off the surface water, so, on examination it was deemed advisable to put in vertical weeping pipes as a system of surface drainage.

On August 23, 1913, authority was given to expend the sum of $20.

Work was begun on September 9 and completed on September 10.

Total expenditure for fiscal years 1913-14, $20.

Dredging.

Instructions were issued, dated September 25, 1913, authorizing the removal of 3,900 cubic yards class 'B' material, place measurement, at 50 cents per yard, and the work was let to David Conroy, contractor for the concrete wharf, and he performed the work by employing the Government dredge *Fenelon*.

The work was commenced on November 1, and completed November 8, 1913, and the material removed, class "B," was 2,958.64 cubic yards at 50 cents per yard	$1,479 32
Inspector	34 25
Total cost	$1,513 57

OSHAWA.

Oshawa, county of Ontario, is situated on the north shore of Lake Ontario, 34 miles east of Toronto, on the main line of the G. T. Ry. It has a number of important manufactures. Population, 2,000.

Instructions were issued to prepare contract plans and specifications for certain harbour improvements, but, up to date, tenders have not been called, owing to certain difficulties in connection with the acquiring of land and the establishing of a roadway.

The harbour improvements will consist of the construction of a breakwater having cribwork substructure and concrete superstructure, 900 feet long by 18 feet wide, a pilework retaining wall 400 feet long; a pilework wharf with concrete superstructure, 550 feet in length; the diversion of the creek from the proposed turning basin into the lake, and the dredging of the harbour to a depth of 15 feet below zero.

OTTAWA.

Dredging.

Ottawa, the capital of Canada, situated on the south shore of the Ottawa river, about 125 miles from its mouth.

The departmental dredge *Nipissing* worked along the face of the Booth wharf (Oct. 16-21) making a very much needed low-water basin. A cut 74 feet long by 25 feet wide was dredged to a grade depth of 12 feet.

Three hundred and ninety yards of sawdust, logs and slabs (scow measure) were removed and spoiled in deep water two miles distant.

Victoria Island Shipyard.

The departmental dredge *Nipissing* worked at the Victoria Island shipyard (May 26-29 and Nov. 12-13) cleaning bed rock for the proposed wharf.

Two hundred and seventeen yards of sawdust and slabs (scow measure) were removed to a grade depth of 13 feet and spoiled in deep water two miles distant.

OWEN SOUND.

Owen Sound, county of Grey, is located at the mouth of the Sydenham river, which enters Owen Sound, an arm of the Georgian bay, 122 miles northwest of Toronto, and is a station on the C. P. Ry. and G. T. Ry. The Northern Navigation Co., C. P. Ry., and Dominion Transportation Co., make this a regular port of call. It is a fine, protected harbour. Owen Sound is 12 miles in length and is navigable for the largest vessels.

The industries consist of two Portland cement plants, chairs, nuts and bolts, malleable iron, matches, tables, two tanneries, woodenware, baskets, three mill machinery, turbine water wheels, wire fences, tweed and other woolen cloths, three agricultural implements, brewery, two brick plants, two lime plants, a stove plant and five grain elevators and warehouses, two cold storage plants, three foundries, two sash and door factories, two flour mills, an oatmeal mill and a linseed oil mill. Population, 12,555.

Authority was given to expend the sum of $46,200 in the completion of the revetment wall on the west side of the harbour, and on July 21, 1912, a contract for this work was awarded to Messrs. Bishop and Buchanan for the sum of $54,785.

This work was resumed March 17, 1913, and closed for the season on February 7, and continued again April 13, and consists in the construction of almost all the pilework substructure, having a total length of 673 feet and a width of 20 feet. No superstructure has been constructed. The progress on this work is slow.

Authority was given to expend the sum of $20,000 for the construction of a retaining wall on the east side of the harbour, and on November 19, 1912, a contract for this work was awarded to Messrs. Butchart and McDowall for the sum of $18,900.

This work was commenced April 2 and completed November 30, and consisted in the construction of a revetment wall having pilework substructure and concrete superstructure securely anchored to two rows of concrete blocks, and having a total length of 418 feet.

On this work the following extras were authorized:—

$396.10 for extension of piling and additional work, the increase of this amount to $431.08; $551 for 19 additional anchorages, and $53 for providing opening for sewer.

These works were duly performed.

Authority was given to expend the sum of $1,200 in repairs to the concrete superstructure of the revetment wall on the west side of the harbour along the water line, where it had been damaged, but owing to the extremely high water prevailing, this work was not performed.

Authority was also given to expend the sum of $4,000 in repairs to the piling on the west side of the harbour by day labour.

Work was commenced July 1 and completed August 26, and consisted in placing new waling on the sheet piling for a length of 270 feet, also placing anchor rods and concrete anchor blocks for the securing and reinforcing of the piling at a distance of 40 feet in rear of same for a length of 270 feet.

Total expenditure for fiscal year 1913-14, $42,451.57.

Dredging.

On 13th June last, authority was given to have the departmental dredge *Industry* perform certain dredging at this place, and at the wharves of the Doric Cement Co., and work at the Doric Cement Co. was commenced on the 12th June, and all the work done in this harbour was completed by the 8th July, and consisted in dredging an area at the Doric Cement Co. to a depth of 16 feet below zero to provide a turning basin for a vessel 350 feet long, and cleaning up the area dredged last season, also dredging in the harbour opposite the C. P. Ry. and G. T. Ry. wharves, these latter to a depth of 20 feet.

In doing these works some 30,107 cubic yards, scow measurement, were removed.

PARRY SOUND.

Parry Sound, district of Parry Sound, is situated on the east shore of the Georgian bay. Population, 3,500.

The business done consists of lumbering, manufacture of iron and charcoal. On

Parry island, a large grain elevator is in operation. The Grand Trunk, Canadian Pacific and Canadian Northern railways have stations and freight yards, and carry on a large business. The Northern Navigation Co.'s boat, the *Waubic,* makes Parry Sound a port of call during the season of navigation, from Penetanguishene and all intermediate points on Georgian bay. The tonnage in and out by vessels was 123,637 in 1912. Custom receipts were $156,000 for 1912.

On 21st October, 1912, a contract was awarded to R. Robinson, F. L. Walton and George White for the construction of a wharf and approach opposite the plant of the Standard Iron Co., for the sum of $72,000.

The wharf is 300 feet in length by 26 in width, with wooden substructure and concrete superstructure, also a stone approach 220 feet in length and 115 in width.

Work was begun on January 1, 1913, and continued until November 30, when work was shut down for the season.

The work done comprises the building, placing and stone-filling of the 300 feet of wharf, the placing of all concrete blocks and cross-wall on same.

By reason of excess depth of dredging of the berths for cribs, it was found necessary to refill them with stone, and authority was given July 3, 1913, to proceed with the work at a rate of $1.30 per cubic yard.

Total amount paid to contractors	$47,765 01
Inspection	664 00
Total expenditure for fiscal year 1913-14, is	$48,429 01

PELEE ISLAND.

Pelee island, Essex county, is situated at the western end of Lake Erie, in latitude 41 40′ N. latitude, 28 45′ W., about 35 miles southeast from the mouth of the Detroit river, and 16 miles south of the town of Kingsville, Essex county. Population of the island about 650. Its products are grapes, wine, fruit, tobacco and farm produce. The soil is particularly rich and fertile. A large number of hogs are raised. Owing to the isolated position of the territory, the docks of this island are of great importance and service to the inhabitants. For some years past, a regular line of steamers has called between three and four times a week at these docks when weather permitted. It is a port of entry and the revenue is steadily increasing. During the fiscal year 1912-13, the customs revenue collected at the west dock amounted to $1,135.62.

At the last session of Parliament, the sum of $3,700 was voted for repairs to landing docks on this island, and on the 10th of June last authority was received to expend the grant by day labour.

On the dock, the work performed between the 2nd of July, 1913, and the 22nd March, 1914, consisted of general repairs to decking over the bays between piers, together with the placing of three cords of stone on approach. In addition, minor repairs and a small amount of painting were done to warehouse.

On the west dock, work was performed between June 20, 1913, and the 31st January, and consisted of general reconstruction of decking and stringers in the vicinity of the warehouse, general repairs and painting of said warehouse, and the renewal of three courses on each face of pier from the warehouse to the shore line.

Eighty-three cords of stone-filling were put in the approach to piers.

The total expenditure for both docks for the current fiscal year, 1913-14, is $3,627.90.

PENETANGUISHENE.

Penetanguishene, Simcoe county, is a town of some 3,000 inhabitants, situated on the northwest peninsula of the Georgian bay between Nottawasaga bay and Severn river, 40 miles northwest of Barrie. It is the terminus of a branch of the Grand

Trunk railway, and a large quantity of lumber is shipped from the place. It contains one of the largest tanneries in the Dominion, and there is a box factory, a stove foundry, a number of saw mills, and it is also the location of a large government asylum. It is a popular summer resort.

On August 7, 1913, the contract with Penetanguishene Dredging Company was extended to cover an expenditure of $7,844·10 made up in the dredging of 52,294 cubic yards at 15 cents per yard to a depth of 14 feet, and work was started August 25, 1913, and continued up to October 21, when the plant became unfit for use and was sent to dry dock for repairs.

Ten thousand three hundred and sixty-one cubic yards in situ were removed at a total expenditure for the fiscal year 1913-14, of $1,738.90.

There still remains 59,740 yards in situ, to be removed according to new survey. This includes 9,000 yards to be overcast and re-dredged.

PETERBOROUGH.

Peterborough, county of Peterborough, is situated on the Otanabee river, on the main line of the C.P.Ry. and G.T.Ry. Population, 17,000. It is also on the route of the Trent Valley canal. It has many important manufactures including the Quaker Oats Company, Peterborough Cordage Company, and the Canadian General Electric Company.

Authority was given to expend the sum of $2,500 in the construction of a pavilion on the George street wharf by day labour, and work was commenced 1st July and suspended on the 4th September.

The work consisted in the construction of a pavilion 40 feet by 24 feet, which is not yet completed as to finishing, etc.

Instructions were issued to prepare contract plans and specifications for the construction of a dry dock, also plans and descriptions of the land to be acquired in connection therewith.

The plans and descriptions of the land have been duly prepared, also the contract plans and the specifications for the dry dock have been prepared and forwarded.

The proposed dry dock will be 44 feet by 175 feet.

Total expenditure for fiscal year 1913-14, $2,724.32.

PICNIC ISLAND.

Dredging.

This island lies about 1½ miles west of the town of Little Current and a large lumber-mill with extensive lumber loading wharves are located on it. The shippings consists wholly of lumber which is shipped in lumber barges and amounts to some 40,000,000 feet, b.m., per year valued at $1,000,000, but the dredging is not in consequence of any interests connected with Picnic island, and the work is so named on account of its proximity.

The object of the work is to improve the general trade route of the north channel of Lake Huron, of which the principal governing conditions in the way of shoal water are found in the neighbourhood of Little Current. This portion of the channel which is being improved is about 5,000 feet long by 300 feet wide, and the grade depth is 22 feet below standard low water level.

On May 9, 1910, an Order in Council was passed authorizing the acceptance of the offer of the C. S. Boone Dredging and Construction Company, Limited, of Toronto, Ontario, for the dredging in the steamboat channel opposite Picnic island. Work progressed during the seasons 1910-11-12. On May 3, work was begun and continued till the 1st of October and 56,495·4 cubic yards of limestone were removed at the rate of $1.70 per cubic yard.

The total expenditure chargeable to the appropriation was $96,492.28.

PICTON.

Picton, Prince Edward county, is the county town, has a population of 3,500, and is situated on the bay of Quinte. It has a number of large canneries and other industries, and it is an important shipping point, also a regular port of call for all liners from Toronto to Montreal.

On 11th April, authority was given to have Messrs. Fallon Bros. resume dredging at this place, as on 5th September, 1912, a contract had been awarded at 17 cents per cubic yard, class "B," place measurement.

Work was resumed on the 31st May and completed 25th October and consisted in dredging the approaches to the harbour 300 feet in width and 1,750 feet long on the west side and 1,980 feet long on the east side, also a channel having a length of 2,545 feet with a width varying from 180 feet to 420 feet, in the harbour. During the season, the dredges removed some 88,648 cubic yards class "B" place measurement.

Total expenditure for fiscal year 1913-14, $18,863.34.

PIKE CREEK.

Pike Creek, Essex county, is a village on the south shore of Lake St. Clair and is situated on the London and Windsor Division of the Grand Trunk Railway. It is ten miles east of the city of Windsor and has a population of about 200.

The principal industry is farming, although considerable fishing is done.

On the 24th June last, authority was received to expend the sum of $760 by day labour for repairs and renewal to pile protection work.

Work was performed between September 2nd and Novemeber 8th, and consisted of a renewal of fifty feet of sheet piling on the west side of entrance to harbour with 8 by 8-inch pine 12 feet long, tied back securely through walings with 1-inch tie rods to anchor piles driven at intervals in the rear.

The remainder of the sheeting also underwent slight repairs both on the east and west side of entrance.

In the execution of the above work, approximately, 6,359 feet, b.m., yellow pine and 690 pounds of iron were used.

The total expenditure for the fiscal year 1913-14 is $759.90.

POINT EDWARD.

Point Edward is a village situated at the head of and on the easterly side of the St. Clair river, in the county of Lambton, adjoining the town of Sarnia, and is 61 miles west of London. It is the terminus of the Grand Trunk Railway, a port of entry, and is the principal port of call for the five steamers of the Northern Navigation Company which load and unload at the Grand Trunk Railway Company's spacious freight sheds. An extensive unloading plant is in use at this place in connection with the unloading of iron ore for the Hamilton Iron and Steel Company.

Up to July 7th, 1913, when the Grand Trunk Grain Elevator burned down, 3,500,000 bushels of grain passed through it. It is one of the most important points of shipment of manufactured goods from the East to the West, and a large amount of timber and coal was brought in during the fiscal year.

During the season 1912-13, 559 vessels arrived at this port, having a total tonnage of 556,973 tons and the revenue has reached as high as $200,000 per annum.

An extensive fishing trade is carried on, the value of the fishing catch during the past season being approximately $50,000.

On the 27th April, 1910, an Order-in-Council was passed granting the Cadwell Sand & Gravel Company, of Windsor, Ont., the exclusive privilege to dredge the material required to be removed, in order to maintain a depth of at least 21 feet of water opposite the docks at Point Edward, on the condition that the said mentioned company be allowed to dispose of the dredged material for its own purposes.

During the past season, 66,300 cubic yards of sand and gravel were removed from April 12, 1913, to January 10, 1914, under the terms of the agreement.

An extensive shoal having not more than from 12 to 16 feet of water has formed, adjacent to the wharves of the Grand Trunk Railway Company at Point Edward and should be removed early this season in order not to interfere with navigation.

PORCUPINE.

Porcupine, a mining town on the Porcupine branch of the T. & N. O. Ry., is situated at the north end of Porcupine lake.

Gasoline launch navigation is very extensive on this lake.

A pilework wharf, approach 12 by 240 feet long and landing-head 33 by 40 feet, was built in the summer of 1912. During the ice shove in the spring of 1913, the structure was almost completely destroyed.

Parliament provided $1,000 for repairs. From May 1st to 8th $50.30 was expended on labour and $61.13 on material, in connection with salvage work. On August 25, repairs were commenced which consisted of removing floor system, incorporating rock-filled cribs in the pilework approach, adding 48 feet of cribwork approach and rebuilding landing-head or cribwork, in new position. The work at Porcupine and South Porcupine was carried on concurrently and intermittently during September and October.

The total expenditure is $1,123.67, divided as follows:—

Pay lists	$633 38
Accounts	473 64
Disbursements	16 65

PORT ARTHUR.

Port Arthur, district of Thunder Bay and Rainy River, a city of 20,000 people, is situated on the north-west end of Lake Superior. Port Arthur, with Fort William, which directly adjoins it on the south, forms the western terminus of the Great Lakes navigation, and is, therefore, one of the most important Canadian ports. It is the Lake Superior terminal of the Canadian Northern railway and is on the main line of the Canadian Pacific railway. It is a port of entry for the Canadian Pacific and Northern Navigation Co. steamers, and for the passenger steamers from Duluth.

A large part of the western grain crop is brought to Port Arthur and transhipped by boat and rail to the east. To handle this traffic there are six elevators with a total storage capacity of 16,000,000 bushels.

In Port Arthur are located, among others, the plants of the Western Dry Dock and Ship Building Co., the Canadian Northern Coal and Ore Dock Co., The Pigeon River Lumber Co., and the Atikokan Iron Co. It is the centre of an extensive lumbering industry, many piles and ties and much pulpwood being handled. It is also a large transhipping point for westbound rails, cement, farm implements, package freight, etc., and several large contracting companies make it their headquarters.

The following figures for the fiscal year 1913-14 give an idea of its importance as a shipping port:—Grain shipped, 62,000,000 bushels; coal received, 1,010,000 tons; vessels discharging same, 152; customs receipts, $1,044,829.45; vessels inbound, 1,592; tonnage, 3,333,212; crews, 53,683.

The Western Dry Dock & Ship Building Co., finished and started construction on 7 vessels, one being of 9,000 gross tons. They also repaired, inside their dock, 33 vessels and, outside, approximately 200.

The following work was carried on by the Department in Port Arthur during 1913-14:—

Bare Point Breakwater.

Work on the rubble mound breakwater at Bare Point, under construction since September 1911, was resumed for the season on May 10th, 1913.

This breakwater, when completed will be 3,200 feet long with a width at the water line of 48 feet and a height above water level of 8 feet. The side slopes are 1½ to 1 and the depth of water varies from 10 to 29 feet. It is the rubble mound type of construction and consists of a core of quarry run to 8 feet below water level having the sides and top covered, to the required section, with large rubble stone weighing 6 to 10 tons.

During 1913, the shore end was advanced from station $^{16}/_{00}$ to station $^{24}/_{50}$, the stone being deposited by train fill from a temporary trestle.

Work on the outer end was carried on by means of flat scows and derrick scows. Some 240 feet was brought approximately to the section required and the remaining 500 feet filled to within 10 feet of the water level.

On account of the soft bottom, considerable settlement took place over the outer 1,400 feet which greatly delayed the work.

Operations were closed for the season on December 24, 1913.

The quantity of stone placed during 1913-14 was:

Core of quarry run	95,560 tons.
Large rubble stone (6 to 8 tons)	74,183 tons.

On October 9, 1913, the contract plans and specifications were sent for an extension to this breakwater, to be 2,500 feet in length and of similar construction to the section already under contract.

Extension to new breakwater.

The work known as the extension to the new breakwater was constructed to give protection to the south part of the harbour, from the Canadian Northern coal docks to the new Government elevator. It consists of a concrete superstructure on a timber cribwork, substructure, the whole on a pile foundation and rip-rapped on both sides. Its length including a headblock at the south end, is 2,730 feet, its width 30 feet and its height above mean low water 8 feet.

This extension was built by the Thunder Bay Contracting Company, of Port Arthur, Ont., under contract.

The pile foundation was driven and cut off at the proper elevation, namely 22 feet, 6 inches below water level, on the ice during February and March, 1913. Some crib building was also started.

Work was resumed on May 5, as soon as possible after the ice went out. A large plant was employed and operations were carried on rapidly. All the cribs, 28 in number, were constructed and set in place by September 8. The concrete superstructure was commened on July 15 and finishd on October 10, 1914. The work of placing the rip-rap was started in May and carried on steadily, the last load being placed on December 2, 1913, after which the work was accepted and a final estimate submitted.

In spite of difficulties, due to a somewhat exposed position, the whole contract was completed in ten months and presents a very fine appearance.

Contract plans and specification for a second extension to the above breakwater were prepared and sent on October 22, 1913. This extension is of similar construction to the section recently completed and is to be 2,540 feet in length.

Dredging.

Necessary dredging improvements and enlargements in the main harbour were provided for under contract which was let to W. E. Phin, Hamilton, Ont. This work, was commenced June 26th and suspended for the season December 13th, 1913, during which time the following dredging was done.

The southern portion of the main harbour, between the Canadian Northern coal docks and the Thunder Bay elevator, an approximate distance of 1,800 feet, was widened from 585 feet to 1,185 feet. The quantity removed was 274,503 cubic yards, scow measurement.

Entrance channel No. 2 (South) opposite the Thunder bay elevator was enlarged by dredging a triangular piece so as to give access to the joint slip between the Government elevator and the Davidson and Smith elevator. The part excavated had a base width of 490 feet and a perpendicular height of 2,300 feet. The quantity removed was 147,763 cubic yards, scow measurement.

In both these cases the depth made was 25 feet, below the zero of gauge.

The channel to King's elevator was widened from 400 feet to 500 feet for its entire length, a distance of 2,800 feet. The depth made was 22 feet, and the quantity removed amounted to 106,528 cubic yards, scow measurement.

All the material removed was sand and clay. Two dipper dredges, the *Kennaquhair* and *Chief* were employed and the average length of haul was 2 miles.

This contract was let on a scow measurement basis and the total quantity removed during the season was 528,794 cubic yards scow measurement at a unit price of 13 cents per yard.

During the past winter, complete soundings and borings have been taken in the harbour to check up the work done and to provide for any necessary extensions.

This contract should be completed by July 1st, 1914, as required, the total quantity authorized being 942,000 cubic yards.

Expenditure for fiscal year 1913-14, $69,731.22.

Joint Slip between Government Elevator and Davidson & Smith Elevator.

A contract which had been entered into between the Department of Trade and Commerce and the Great Lakes Dredging Co., of Port Arthur, for the dredging of a slip 100 feet wide at the Government elevator, under construction by the Board of Grain Commissioners for Canada, was transferred to the Department of Public Works, and this contract was extended in order to dredge this slip 175 feet wide and make it a joint slip between the Government elevator and one being erected by Davidson & Smith.

This work, which was necessary to give access to the above plants, was commenced September 22, and completed November 6, 1913. The slip as completed is 1,670 feet long and 175 wide, the contract depth was 25 feet below the zero of gauge. The material was clay and sand.

The hydraulic dredge *Shuniah* was employed and removed 163,603 cubic yards, place measurement, the material excavated being placed as backfill on the adjacent properties. Dipper dredge *No. 6* was brought in also to do some cleaning up along the face of the Government elevator dock and removed 3,131 cubic yards, place measurement. This makes a total of 166,734 cubic yards, place measurement, dredged at a unit price of 25 cents per yard. The amount authorized was 200,000 cubic yards. The necessary soundings, cross sections, etc., were kept up as the work progressed.

During March, 1914, this slip was thoroughly sounded again, and it was found that considerable filling in, due to the high face and soft material, had taken place, and that some re-dredging will be necessary.

PORT BRUCE.

Port Bruce is a village situated at the mouth of Catfish creek, in the county of Elgin, on the north shore of Lake Erie, about 5 miles south of Aylmer. Population, about 150. Surrounding country is a rich farming district. Principal industry is fishing, in the pursuance of which it ranks as an important place.

At the last session of Parliament, the sum of $7,000 was voted for an extension to the west pier, and on the 10th June last authority was received to expend the grant.

Considerable delay was experienced in securing the timber required, owing to the fact that this port is five miles distant from the nearest railway, and securing of the material by water route is therefore practically obligatory for any large amount of timber such as was required.

Operations were commenced on September 3 and were closed down on the 24th inst.

The work consisted of the construction of a close-faced timber crib 100 feet long, 20 feet wide, and 17 feet high. Attempts made to sink this crib in position, during the latter part of October and the early part of November, met with failure as, owing to more or less heavy weather, the berth required could not be provided.

The dredging performed by the Government dredge *Sir Richard* proved futile, as filling in occurred regularly after berth was partially dredged. The providing of this berth last fall had to be abandoned, as the dredge was urgently needed at Port Burwell, and the crib was then stored for the winter in the turning basin in inner harbour. All materials necessary to complete this crib, including stone-filling, has been secured and stored on the site of work.

Ninety feet of the outer end of west pier, which, to date, had no covering, was covered with 3-inch chestnut.

In the execution of the above work, the following materials were purchased, and part of which are still on hand for the completion of the crib above referred to.

Approximately 117,084 feet b.m. timber, and 12,215 pounds of iron.

Dredging.

Under authority dated April 26 and July 29, 1913, 34,250 cubic yards, scow measurement, of clay, sand and a small amount of stones were removed by the Government dredge *Sir Richard* in deepening the entrance to channel between piers; in enlarging the turning basin in the inner harbour, and in dredging a berth for the timber crib which latter had to be abandoned as above stated.

The depths to which dredging was performed were 9 feet below L.W.L. in inner harbour, and 13 feet below L.W.L. in the channel between piers and entrance to same. The width of the completed channel is 50 feet.

Operations extended from July 11 to August 26 and October 6 to November 15 last.

Total expenditure for the current fiscal year, is $6,163.35.

PORT BURWELL.

The village of Port Burwell, Elgin county, is situated at the mouth of Otter creek on the north shore of Lake Erie, 22 miles east of Port Stanley. It is the terminus of a branch of the C.P.R.y. It is a harbour of refuge and is distant 51 miles from the port of Ashtabula, Ohio, and with which place an extensive traffic is carried on. The car ferry operated between this port and Ashtabula by the Pennsylvania-Ontario Transportation Company brought in 11,943 cars during the season of 1913 with a tonnage of 948,971 tons and delivered to the Pennsylvania Company at Ashtabula, 97 cars with tonnage of 2,219 tons of general merchandise. Population, about 350. Customs duties collected during the fiscal year 1913-14 amounted to $203,441.04.

A small fishing trade is carried on from this point which amounted to approximately $75,000 in value. It is also a summer resort.

On the 24th April last, authority was received to expend the sum of $1,000 to cover construction of public landing dock at inner end of harbour and make repairs to piers. Subsequently an expenditure of $2,030 was authorized to fill in gap between inner end of breakwater and existing piling, to the east of same, with sheet pile protection work.

Operations were commenced on the 5th August, 1913, and were closed down on the 31st inst.

Work consisted of renewal of defective face timbers and decking on the west pier; the construction of a pile landing pier, 185 feet long and 16 feet wide at inner end of harbour and the construction of a 63 foot extension to pile wall at outer entrance to harbour with 12 by 12 white oak close sheet-piling.

In the execution of the above work, approximately 27,850 feet, b.m., white oak, 30,119 feet b.m. pine and other timber, 2,270 lineal feet of piling and 4,080 pounds of iron were used.

Breakwater.

Four hundred and eighty-five feet of superstructure and 100 feet of substructure of breakwater under contract with Mr. M. J. Hogan, of Port Colborne, was constructed, thereby completing this work.

Dredging.

Between April 9 and July 8 and between November 30 and December 27, 1913, the Government dredge *Sir Richard* was engaged in widening and deepening the outer entrance channel between piers, in turning basin and in forming a channel from the main harbour to the new landing dock lately constructed at inner end of harbour.

Between June 18 and September 19, 1913, the dredge *Meade* of the C. S. Boone Dredging and Construction Company, Limited, was employed in widening and deepening the outer entrance channel.

The total quantities removed by both dredges during the periods stated were 94,949 cubic yards, scow measurement, of silt, sand and clay, and of which quantity the Government dredge removed 49,650 cubic yards, scow measurement.

On the completion of dredging, the safe depths in the various parts of the harbour were as follows:—

In the outer entrance channel, 18 feet below L.W.L. for a width of 250 feet.

In channel between piers, 17·3 feet below L.W.L. for a width of 75 feet.

In turning basin 14·3 feet below L.W.L. for a width of 100 feet.

In approach to landing pier, 12 feet below L.W.L. for a width of 25 feet.

The cost of the work performed under the contract with the C. S. Boone Dredging and Construction Company, Limited, was $12,862.29.

Total expenditure during the fiscal year 1913-14, $65,509.47.

PORT FINDLAY.

Port Findlay is the name given to the Government wharf situated on the north shore (mainland) of St. Joseph channel of the St. Mary's river, opposite to Richard's Landing, and about 27 miles easterly from Sault Ste. Marie. The nearest post office is McLennan two miles distant, and the nearest railway station is Desbarats on the Canadian Pacific railway, 8 miles distant easterly. The surrounding country is very productive and a large amount of farm produce is shipped, as well as considerable imports of general merchandise; some hundreds of head of live stock are also shipped by boat.

Authority was given in June, 1913, to expend the sum of $900 by day labour in making repairs to the Government wharf.

Work was commenced on the 14th July, and was completed on the 27th October, 1913. The work consisted of general repairs to the waling timbers of the wharf and the construction of an annex to the warehouse, 22 feet wide by 40 feet long, to be used as a stock stable for the shelter of live stock awaiting shipment by boat. The building is well constructed and neatly painted, and some 14,100 feet of timber, 620 pounds of iron, 15 gallons of paint, and 13,000 shingles were used, at a total expenditure of $899.93.

PORT HOPE.

Port Hope, county of Durham, is located on the north shore of Lake Ontario, 60 miles east of Toronto on the Grand Trunk railway, Canadian Northern railway and Canadian Pacific railway. A steamer to Montreal calls bi-weekly and one to Rochester, daily. The industries located at this place include preserving and canning, enamelware, iron sewer pipe and connecting iron works, plumbers' supplies, tanneries, foundry, file factory, flour mills, pottery and red brick plant, planing mill, machine shop, large greenhouses, carriage and implement factories, rubber and leather factory, wooden and steel mats and leather shoe laces. It is a splendid fruit farming locality. Population, 5,089.

Authority was given to expend the sum of $4,000 in wharf repairs by day labour and work was commenced 17th June and completed 5th December. The work done consisted of the following:—

Re the east pier, commencing just north of the 200 feet of concrete wharf two pieces were repaired, one 29 feet by 12 feet and the other 27 feet by 14 feet using 3-inch by 10-inch planks; filled in a hole behind the concrete wharf 200 feet long by 5 feet on top with stones and bricks at bottom and cinders on top, making it safe; repaired another piece 42 feet by 12 feet using part old and part new material, and a piece 38 feet by 12 feet using good old planks. Rebuilt some 120 feet by 30 feet where the warehouse stood, from low water up and moved the storehouse about 140 feet further south and put in new sills and floors throughout, also jacked up piece of roof 23 feet by 22 feet at north end of store house to make half story for harbour master's quarters.

Rebuilt 110 feet by 16 feet of wharf, from the water up, for foundation for the east side of storehouse to rest upon. Re-decked 20 feet by 16 feet of east side of pier opposite to where storehouse stood; another section 45 feet by 16 feet on east side opposite present storehouse; built a rail 304 feet long on east side of high part of pier from the lighthouse, north, to permit of easy access to the lighthouse in rough weather; repaired 26 feet by 30 feet of extreme south end of east pier; placed 5 new white oak piles, and replaced and reinforced 6 old ones.

Re-decked 16 feet by 16 feet on east side of middle pier.

Re-decked 250 feet by 14 feet of pier on the west side of the new harbour from elevator to foundry. Made it safe for foot passengers on 425 feet at north end of new harbour and for 600 feet on east side, and made other minor repairs.

Instructions were issued to prepare contract plans and specifications for the construction of a revetment wall, tenders were called but, up to date, the work has not been awarded.

This work will consist in the construction of a wall 645 feet long by 16 feet wide, having cribwork substructure and concrete superstructure 3 feet wide at the top and 5 feet wide at the bottom.

Total expenditure for fiscal year 1913-14, $3,999.89.

Dredging.

On April 26 and May 2 last, authority was given to have the R. Weddell Co. perform certain dredging at this place at 23 cents per cubic yard, scow measurement.

Work was commenced April 29 and completed May 14, and consisted in dredging the approaches to the harbour, having a length of 660 feet and a width of 80 feet.

In doing this work, some 10,000 cubic yards, scow measurement, were removed.

Total expenditure for fiscal year 1913-14, $2,371,28.

PORT ROWAN.

Port Rowan, Norfolk county, is situated on the north shore of Lake Erie, in the inner bay of Long Point, and is 21 miles from the town of Simcoe. Population, about 1,000. It is port of entry and a favourite summer resort. A considerable quantity of fish is shipped over the dock. It is a terminus of a branch of the Grand Trunk railway. A large number of launches and light draught tugs utilize these piers continually, more particularly during the summer season, and it is a harbour of refuge for crafts of this character.

Customs duties collected during the fiscal year 1912-13 amounted to $2,769.81.

On the 11th July last, authority was received to expend the sum of $800 in making general repairs required to landing pier.

Operations were commenced on August 14 and were completed on August 30 last.

The work consisted of laying and levelling of filling on approach and topping off of same with gravel; a considerable portion of outer end and pier was re-decked and face timbers were renewed and general repairs were made to the remaining portion of deck and to the concrete piers where erosion had occurred.

In the execution of the above work, 12,935 feet, b.m., of timber and 450 pounds of iron were used.

Total expenditure for fiscal year 1913-14 is $800.

PORT STANLEY.

Port Stanley, Elgin county, is an important harbour of refuge situated on the north shore of Lake Erie, at the mouth of Kettle creek, in the county of Elgin, 8½ miles by rail south of the city of St. Thomas and 23½ miles south of the city of London. It is the terminus of the Père Marquette railway and of the London and Lake Erie Railway and Transportation Company. It is a favourite summer resort. Population about 750, which is largely increased during the summer months.

A large coal ferry, owned by the Lake Erie Coal Company of Walkerville, Ontario, and carrying 30 cars, each of a capacity of 100,000 lbs., plies between this port and Conneaut, Ohio, making an average of two round trip every 30 hours. During the season of 1913, 652,894 tons of coal and miscellaneous freight were brought into this port by car ferry and of this total, the quantity of coal was 617,080 tons. It is a port of entry and the revenue collected during the fiscal year 1912-13, amounted to $79,411.15. It is a most important fishing point, some 16 tugs being employed in this business, and during the past fiscal year over 5,500,000 pounds of fish were handled over the piers, amounting in value to over $250,000.

It is the regular port of call for three lines of steamers carrying freight and considerable package freight. There is a small grain elevator which handled 250,000 bushels of grain during the season of 1913. Maximum draught of vessels entering this port, about 18 feet.

During the season 1912-13, 531 vessels entered this port with tonnage of 683,545 tons. In addition to the imports already mentioned, timber, ties, fence posts and general merchandise are handled over the piers.

At the last session of Parliament, the sum of $132,000 was voted for harbour improvements and on the 10th June last, authority was received to expend, by day labour, the amount of $17,500 for partial reconstruction of the west pier and in effecting general repairs to the piers.

West Pier.

One hundred and sixty feet of this pier was entirely reconstructed with close-faced sheet piling for substructure, tied back securely to anchor piles in rear of structure, and with stone filling between; superstructure consisted of 12-inch reinforced concrete face walls tied together with reinforced cross-ties and decked with 6-inch granolithic flooring laid on well settled stone and gravel filling. In addition, 100 feet of the substructure of this pier was practically renewed in a manner similar to that already described, and part of the old pier was excavated to L.W.L. for a length of 240 feet.

There is now on hand sufficient material to complete the reconstruction of 340 feet of this pier next season.

The decking, stringers and a few face timbers were renewed for a length of over 200 feet and other minor repairs were made to the timber portion of this pier.

East Pier.

Four hundred and eighty-seven feet of the superstructure was stripped preparatory to complete removal of this pier, during the coming season, and part of the stone thus obtained was stored for use in the reconstruction of the west pier.

Operations included under repairs and renewals extended from May 1, 1913, to the 31st instant.

Southwest Breakwater.

Contract for this work was awarded to Mr. M. J. Hogan, Port Colborne, Ont., on the 30th December, 1911, for the sum of $210,376 and at the beginning of the present fiscal year, four hundred feet of the substructure was completed. Work was resumed on the 1st of April and was closed down for the season on September 27, when the entire substructure had been completed. In addition, 880 lineal feet of footing block for superstructure was constructed on shore for use next season.

On the 2nd of August last, advice was received of the approval of a change substituting concrete footing blocks for mass concrete covered with iron plates on the superstructure of this work, on the understanding that a reduction of $10,000 would be made to cover this change.

Progress in this work has not been altogether satisfactory, but there would appear to be no reason why the contractor cannot complete the work within the extension of time applied for, with ordinary weather prevailing.

Dredging.

Under date of April 8th and June 18th, 1913, authority was received to complete contract between the Windsor Dredging Company and the Department. Work was commenced on April 1st and ceased on June 24th last, during which period 58,961 cubic yards, scow measurement, of sand, silt and clay were removed in deepening a portion 530 feet long by 300 wide at outer entrance to channel between breakwaters to 22 feet below L.W.L.; in deepening the channel 55 feet wide, between piers to a depth of 20 feet below L.W.L., and in deepening a considerable portion of the inner harbour, 275 feet wide, to a depth of 19 feet below L.W.L.

In turning basin, 19 feet below L.W.L.

In channel between piers, 20 feet below L.W.L.

In channel from outer end of piers to outer entrance, 18·5 feet below L.W.L.

In outer entrance to channel, 20 feet below L.W.L.

The dredging operations were commenced on April 1st and ceased on June 24th, 1913.

The cost of the work was $16,056.77.

The total expenditure during the fiscal year 1913-14, is $80,169.59.

PROVIDENCE BAY.

Providence Bay is situated on the south shore of Manitoulin island, Lake Huron, about 25 miles southeasterly from Gore Bay, and has the only harbour along the coast. The population is about 300, engaged in agriculture and fishing, each of which is fairly important, and two or three fishing tugs make headquarters here. Passenger steamboats call regularly to and from Owen Sound and intermediate ports.

The work consisted of the construction of an extension to the existing landing pier 294 feet 6 inches long. Originally this extension was designed to be all cribwork, and a contract was entered into in 1910 with C. H. Sherwood for its construction. He, however, met with such adverse weather conditions during which an 80 by 20-foot crib which he had placed in position and filled with rock was wrecked and shifted out of place, that he applied to be relieved from the performance of his contract and, after due consideration, consent was given, on the understanding that the Department pay for work performed and materials delivered at cost prices only. The crib built by Mr. Sherwood lay in such an awkward position that it was impossible to repair it or continue its construction, and the expedient was adopted of driving close-piles on each side of it and tying them together with iron rods across the tops of the crib and then filling between with stone, thus utilizing the wrecked work as filling. This pile-work portion is the inner end of the work and is 20 feet wide by 94 feet 6 inches long. The remaining 200 feet consists of two cribs, each 80 feet long by 20 feet wide, and a head-block crib 40 feet long by 32 feet wide. The entire cribwork rests on a wide pole mattress, and a stone talus is built against the exposed face of the work.

The object is to form a greater area of quiet harbour and more extended landing space.

An appropriation of $33,000 was made at the last session of Parliament to provide for the cost of this work. A contract dated February 6th, 1913, was entered into with Mr. E. V. H. White, of Burlington, Ont., to perform it for the sum of $21,480, but out of which an amount was to be retained to reimburse the former contractor, equivalent to the value, at prices stipulated in the specifications, of materials found on the ground delivered by him and for the work which he had performed.

Work was commenced on the 30th of April, 1913, and was completed on July 31st. The expenditure during the fiscal year was $21,633.

QUARRY BAY.

Quarry Bay, county of Ontario, is located on Lake Couchiching, 1½ miles from Langford station. The wharf is located at Geneva park, adjoining the property of the Young Men's Christian Association, on which are established national summer schools. At the present time, they have 17 cottages, a large pavilion, a gymnasium, athletic grounds and a number of private residences.

Authority was given to expend the sum of $5,000 for the construction of the wharf by day labour, and work was commenced 8th August and completed 13th December.

The work consisted in the construction of a wharf of solid cribwork, having a length of 70 feet and a width of 20 feet, with a stone approach 70 feet by 20 feet, and a shelter.

Total expenditure for fiscal year 1913-14, $4,201.52.

RAINY RIVER.

Rainy River, district of Thunder Bay and Rainy River, population 1,500, is situated on the Rainy river some 18 miles from its mouth. It is a divisional point on the Canadian Northern Ontario railway, and is surrounded by an extensive lumbering and farming district.

Authority for the construction of a wharf at Rainy River, by day labour, was given on June 10, 1913.

Plans were prepared for a pile wharf 160 feet long and 30 feet wide, with an "L" 50 feet long and the same width. Work was started July 28, and the wharf was completed October 3, 1913. A freight shed was constructed on the "L". The total cost of the wharf was $3,455.83.

Dredging.

The Rainy river, district of Thunder Bay and Rainy River, flows from Rainy lake into the south end of the Lake of the Woods, and forms the international boundary between the province of Ontario, Canada, and the state of Minnesota, U.S.A. The mouth of Rainy river is divided into two outlets, one leading direct to the open lake, known as the "Old Steamboat Channel", and one behind Sable island, or the "Sandhills," known as the "Towing Channel." Both outlets are partially impeded by sand bars.

To enable boats, operating on the Lake of the Woods to ascend the river as far as the town of Rainy River, some 18 miles from the mouth, to give continuous navigation between that place and Kenora, at the north end of the lake, a distance of 150 miles and to aid navigation interests generally, improvements at the mouth of the river were necessary.

An investigation was made and it was recommended that a channel be dredged through the sand bars at the outlet known as the "Old Steamboat Channel".

A contract was let for this work to J. T. Horne, Esq., Fort William, Ontario, and two separate sections, approximately 1,200 feet apart, are being dredged, and when completed each one will be 800 feet long, 200 feet wide and 14 feet below the zero of gauge.

The work was started September 15, 1913, and suspended for the season on November 10, during which time one part was dredged 100 feet wide and 800 feet long, and the other part 50 feet wide and 800 feet long. All the dredging was carried down to the contract depth, namely, 14 feet. The dipper-dredge *Moose* was used, working on a place measurement basis of payment. The average depth of face was 8 feet, and the length of haul 1½ miles. The material was sand and clay.

Estimates for 29,728 cubic yards, place measurement, were returned at a unit price of 45 cents, making a total of $13,377.60.

During February, 1914, complete soundings were taken to check up the work already done and to provide for future work if necessary. These soundings show that very little filling-in had taken place to date, and that the work is sufficiently advanced to ensure completion by July 1, 1914, as required under the contract. Total yardage authorized, 65,000 yards.

A pile protection work 800 feet in length, running from Oak point and parallel to the channel, was recommended to ensure permanency for this dredging. Contract plans and specifications were prepared and tenders called for. This contract has not been awarded as yet.

RICHARD'S LANDING.

Richard's Landing is a village of about 400 inhabitants situated on the northwest side of St. Joseph island, in the St. Mary's river, on the steamboat route from Sault Ste. Marie to Blind river, Little Current, etc.; all steamboats plying on this route call regularly, and there are also two daily steamboats to Sault Ste. Marie. The traffic consists chiefly of the export of agricultural products and imports of ordinary merchandise. A section of upwards of 50 square miles is served over this wharf. St. Joseph island is fertile and parts of it well settled.

Instructions were given on June 10, 1913, to prepare contract plans and specification in connection with the appropriation made at the last session of Parliament of the sum of $15,000 for the construction, by contract work, of a wharf extension.

The plans were duly prepared and forwarded to Ottawa, and the work was awarded to John O'Boyle of Sault Ste. Marie, Ontario, by Order in Council, dated the 3rd of January. The contract is on a schedule price basis and entails an expenditure of approximately $21,746.03.

The work consists of a concrete wharf having a wooden cribwork substructure 180 feet long by 18 feet wide in front of the existing wharf; the removing of all the decayed portions of the present wharf, and replacing it with stone fill about 146 feet long by 64 feet wide. There has been no expenditure.

RIVER ST. LAWRENCE.

Kingston to Brockville.

The object of the work is the development of the middle channel through the Thousand islands in the Upper St. Lawrence river so as to make a safe channel for large grain and freight boats with 14-foot draught. At present the majority of the boats use the American channel.

The work consisted in the removal of a number of rock shoals and submerged points on the river St. Lawrence between Kingston and Brockville to an elevation 16 feet below low water level (El. 243).

The contract for this work was given in February, 1909, to Mr. Frank Gilbert at $3.95 per cubic yard (in place) all material under contract being rock. During the same year, Mr. Gilbert assigned the contract to Mr. E. G. Evans, and during 1911, Mr. Evans formed the Montreal General Contracting Company to handle the work.

The plans, where work has been done, are located as follows: From west to east, a submerged shoal off Punts island, a submerged point off Camelot island, a shoal off Myres island, a submerged point off Lyndoe island, a strip off Morris point, three shoals north of Wood island, and a submerged strip and small island south of Wood island.

The work on the contract was completed in December, 1913, and the total excavation from the start of the work (1909) amounted to 29,981 cubic yards.

During the fiscal year 1913-14, 8,218·5 cubic yards were removed (place measurement). The plant on the work, during the fiscal year, consisted of the dredge *Ottawa,* a steel drill scow, tug, dump scows, etc.

Work for the fiscal year started on May 13 and ended on December 6, when work of contract was completed.

RIVER THAMES.

The River Thames flows through the city of Chatham and 18½ miles west of the latter place it empties into Lake St. Clair. At its mouth, a channel 8,100 feet in length has to be maintained in order to reach deep water in the lake. Owing to the shifting character of the bottom of the channel, the material being sand, continual filling in occurs, and, in consequence, the cleaning out of the channel has to be done almost annually, in order to provide a minimum depth of 12 feet. A steady traffic prevails in and out of this river throughout the season, from the city of Chatham and the smaller points lying between the city and the mouth of the river. The Chatham Navigation Company operates a passenger and freight boat between the cities of Chatham, Windsor and Detroit, making three trips per week. During the fiscal year 1912-13, 155 vessels arrived at the port of Chatham having a tonnage of

39,649 tons, and the revenue collected during the said time, amounted to $189,054.35. The maximum draught, as far as Chatham, is now about 12 feet.

At the last session of Parliament, the sum of $3,100 was voted for removal of obstructions between the city of Chatham and the mouth of the river, and on the 8th April, authority was received to expend $516.66, which amount was supplemented by an additional $2,583.34 on the 10th of June following, making a total grant of $3,100.

Operations were commenced on the 17th April and were actively carried on until the 4th October last, when the logging outfits were laid up for the winter. Three such outfits were employed most of the time on this work.

Between the 4th and the 31st October, a small amount of work had been done in attending to plant and preparing it for next year's work.

The work consisted principally of the removal of 2,578 logs and other obstructions from the river between the city of Chatham, and a point about one mile east of Prairie siding, together with four days' work in lifting obstructions from the entrance channel at the mouth of the river.

This work is acknowledged on all sides to be of immense benefit to the shipping interests which utilize this river. Any saleable logs recovered were sold, and an account of $87.83 was realized on same and credited to this work.

Dredging.

Between June 27, and September 23, 1913, 13,824 cubic yards scow measurement of sand, clay and a small quantity of stones were removed by the Government dredge *Ontario* in order to improve the entrance channel and make it a full width of 100 feet at base and 14 feet deep at L.W.L. It was found impossible to complete the work as the plant engaged was required elsewhere. It is the intention, to further improve this channel during the coming season.

Ice Breaking.

Authority was received under date of January 6 to expend, if necessary, the amount of $1,500 in addition to the amount required for rental of the tug engaged for the purpose of breaking ice in this river in order to prevent the formation of ice jams and consequent flooding of the lands adjacent to the river and covering a stretch of territory from the river mouth to the city of Chatham.

On January 7, arrangements were made with Captain J. S. McQueen of Amherstburg, to place his tug *LeRoy Brooks* at the mouth of the river for the sum of $500 and to have her ready to break ice as required, on the said river, when called upon to do so between said date and the opening of navigation this year.

The operations extended from February 1 to February 7 and again from the 11th inst. to the 27th inst. inclusive.

During the latter period, the tug was employed night and day and in the stretches of the river adjacent to Prairie siding, where the ice had jammed to a thickness of about 6 feet and for a length of nearly a mile, dynamite was effectively used and the tug reached the head of the jam on the 25th inst.

While this system of breaking ice has proved effective in the present instance, there is no doubt that it was largely accounted for by the exceptionally favourable weather during the winter break-up.

The total expenditure for the fiscal year 1913-14, for the above works, is $5,506.98.

RONDEAU.

Rondeau, Kent county, is an important harbour of refuge, and a port of entry, situated on Pointe aux Pins, about 19 miles south of the city of Chatham and 45

miles west of Port Stanley. It is a favourite summer resort and is a terminus of the Sarnia and Rondeau branch of the Père Marquette railway. Population, about 125, which is increased to about 600 in the summer months.

In the inner harbour and at westerly side along coal docks, a modern and extensive coal handling plant is used by the Lake Erie Coal Company for unloading coal from their boat which runs regularly between this point and Conneaut, Ohio.

During the season of 1913, 312,208 tons of coal were brought in at this port, the car ferry making 167 cross trips during that time.

The customs duties for the year 1912-13 amounted to $115,138.18. During the same period, 175 vessels arrived with tonnage of 157,982 tons, exclusive of coal. A small fishing trade is carried on at this point and the minimum draught for vessels entering this port is 18 feet.

At the last session of Parliament, the sum of $2,300 was voted for repairs to piers and on the 8th of April last, authority was received to expend, by day labour, $383.33. On the 10th June following, an additional grant was authorized of $1,916.67.

Operations extended from April 1, 1913 to March 25, 1914. Between these dates the following works were performed:—

West Pier.

About 500 square feet of decking, 32 lineal feet of face timbers and 50 feet of waling were renewed, four mooring posts were renewed and 30 white oak fender piles were driven and wrapped with cable along the north end of pier.

East Pier.

General repairs made to decking and a few face timbers, stringers and 40 feet of guard rail were renewed and repairs were made to sheet piling on outer end of pier.

Breakwater.

About 60 tons of heavy stone rip-rap were placed along the outer end of breakwater to protect it from erosion and twenty-four concrete blocks, weighing 3 tons each, were constructed and 60 tons approximately of rubble stone were purchased, all of which material is on hand with a view to being placed early in the next fiscal year as further protection against erosion.

In the execution of the above work, approximately 1,200 lineal feet of piling, 9,616 feet b.m. timber, 735 pounds of iron and 60 tons of rubble stone were used.

Dredging.

Under authority dated August 19 and 26, 11,505 cubic yards, scow measurement, sand, silt and clay were removed by Government dredge *Sir Richard,* in removing a shoal from the entrance channel between piers, from turning basin in inner harbour and in deepening and lengthening the channel in the Lake Erie Coal Co.'s slip, which, under agreement with the coal company, is available for public use when required.

Operation extended from the 1st to the 30th of September, and on their completion, a minimum safe depth of 18·6 feet below L.W.L. has been provided in entrance channel and turning basin for a width of 250 feet, while in the coal slip the minimum depth provided was 17 feet below L.W.L.

Total expenditure for the fiscal year 1913-14 is $2,299.03.

ROSSEAU.

Rousseau, district of Muskoka, is a popular summer resort at the northerly end of Lake Rousseau. It is largely patronized by tourists.

On June 11, 1913, authority was given to extend the wharf by an addition 20 feet in length and 18 feet in width, at an expenditure of $1,500, the work to be done by day labour, consisting of wooden substructure and concrete superstructure.

Work was begun September 19 and continued up to November 15, when, owing to necessity to perform some dredging, and the settlement of the crib, the appropriation was exhausted. The work had been carried, at this date, to placing the concrete blocks and backing the same with stone, still leaving mass concrete to be placed. On November 28, 1913, authority was given to expend a further sum of $120 to place concrete top, but season was too far advanced to get the work done.

The total expenditure for fiscal year 1913-14, including inspection, is $1,502.54.

ST. JOSEPH ISLAND.

This is a large island lying in the mouth of St. Mary's river, some 30 miles long by 15 miles wide, and is for the most part fertile land and fairly well settled. The westerly or Mud lake shore produces considerable dairy and garden produce, which is taken to market at Sault Ste. Marie every day during the summer and fall.

The object of the work is to provide a warehouse on each of the Government wharves for the shelter and storage of the residents products and imports during rough weather. Authority was given on June 10, 1913, to do certain construction work by day labour, with the appropriation of $4,000 granted at the last session of Parliament. This construction consisted of the building of warehouses 18 feet wide by 40 feet long, with rock and cribwork foundations, on the Government wharfs in Mud lake, on the west side of St. Joseph island, at respectively the end of the "C" line road, the "K" line and the "P" line.

Work was commenced August 7 on the "C" line, and was completed October 15, 1913; on "K" line June 2, and was completed March 31, 1914; on "P" line July 26, and was completed March 23, 1914.

In the building of these warehouses 20,533 feet b.m. of lumber, 5,885 lineal feet of timber, 1,693 pounds of iron and nails, 36¼ M. shingles, 83½ gallons of paint and oil, and 650 cubic yards of stone filling were used, at a total cost of:—

"C" line	$1,350 70
"K" line	1,339 47
"P" line	1,321 20
	$4,011 37

ST. WILLIAMS.

St. Williams, Norfolk county, is an incorporated village, situated on the northern shore of Lake Erie, on a branch line of the Grand Trunk railway, 16 miles southwest of Simcoe and 3½ miles northeast of Port Rowan. Population, about 350. It is a favourite summer resort and adjacent to the celebrated hunting and fishing grounds of Long Point.

On the 12th June last, authority was received to expend the sum of $100 in making necessary repairs to approach to landing pier at this point.

Work was performed between the 2nd and 25th of July, and consisted of the raising of stone approach and levelling off of same.

In the execution of the above work, approximately 40 tons of rubble stone and 25 cubic yards of sand and gravel were used.

Total expenditure for the fiscal year 1913-14 is $100.

SAND POINT.

Sand Point is a station on the main line of the C. P. Ry., in the county of Renfrew, on Chats lake; between it and Norway bay, a growing summer resort, there is regular boat service.

At its last session, Parliament appropriated $1,900 for extensive repairs and improvements to the concrete wharf. The wharf as originally constructed consisted of an earth approach 147 feet long, earth fill approach 18 by 85 feet and landing-head 50 by 68 feet, between concrete walls which rested on a crib-work foundation. Unexpected settling of the foundation caused breaks in the concrete wall and irregularities in its elevation and face lines. Owing to this, it was considered expedient to build new concrete face walls outside the landing-head, resting on close centered piles and connect up the old and new work on top by means of a reinforced slab. There was also a considerable amount of earth fill required to grade up the approach and landing-head.

Early in February, 1914, plant owned by the department was shipped to this work. Old cable, iron and expanded metal, to be used for reinforcing, were also secured from stock on hand at other points.

On February 16th, work was started and continued up to March 31. During this time, 60 piles, 25 and 30 feet long, 1,750 lineal feet were driven, jacked into place and secured by cable lashing and round timber bracing. Of the concrete wall, which when finished will be 8 feet high, and 196 feet long, 3 sides of landing-head, 1 foot 3 inches wide at top and 3 feet 3 inches at bottom, 2·5 feet in height, have been placed. In addition, about 50 per cent of the earth grading has been completed.

It is expected that all the cement required is on the work.

Expenditure to March 31:—

Labour	$786 20
Material, cement, lumber, etc.	732 39
Sundry repairs, freight, etc.	198 40
Total	$1,716 99

SARNIA.

Sarnia, Lambton county, is a thriving town, situated on the east bank of the St. Clair river, in the county of Lambton, about 3 miles south of Lake Huron and 59 miles by rail from the city of London. It is served by both the Père Marquette and Grand Trunk railways. Population about 10,000. It is a port of call for a large number of vessels, and is the headquarters of the Northern Navigation Company. During the fiscal year 1912-13, 8,979 vessels arrived at this port, having a total tonnage of 1,951,848 tons, and during the same period the Customs duties amounted to $487,631.21.

Many large industries are located at this point, among others being the Imperial Oil Company, which has a large plant in operation and which is being steadily increased in size. The maximum draught for vessels entering this port is 21 feet.

Dredging.

During the past season, and under authority dated May 19th, a total of 14,936 cubic yards, scow measurement, of clay was removed in dredging the shoals fronting the Père Marquette Railway Company's wharf and the Imperial Oil Company's coal dock.

The work was performed by the Government dredge *Ontario*, and operations were commenced on September 21st and ceased on November 25th, 1913.

On the completion of this work, the following depths were found to obtain, namely—

(1) In one cut 125 feet wide and 1,100 long, along the front of the wharf, 19 feet deep below L.W.L.

(2) Over remainder of area, 21 feet below L.W.L.

SAULT STE. MARIE.

Sault Ste. Marie, including the contiguous city of Steelton, has a population of about 20,000, and is steadily increasing in population and importance as the industrial and commercial centre of northwestern Ontario. It was founded by Father Joques, 300 years ago, when a mission to the Indians was established on the river, at the foot of the falls which he christened Sault Ste. Marie, and from which the river became known as the St. Marys river. It was subsequently a mere trading post until comparatively recent years, since the lake traffic began to grow into importance and demanded the improvement of the canals and locks to permit cargo vessels to trade from Lake Superior ports to Lake Erie ports, the trade has grown into gigantic proportions until at the present time the amount of freight passing through the river is, according to the official canal office records, about 100,000,000 tons. The trade of the town itself is large, and in 1913, according to the report on Trade and Navigation, the value of goods entered through the customs was:—Imports $7,726,940, and exports $7,373,465. The Lake Superior Corporation's steel mills turn out about 1,500 tons of railway rails per day, and its pulp and paper-mill manufactures some 600 tons of newspaper per day.

Instruction was given on 10th June, 1913, that the appropriation amounting to $26,000, voted at the last session of Parliament, was available to carry on the contract work of reconstruction of the approach to the Government wharf, which contract was entered into on the 30th of October, 1912, with John O'Boyle, of Sault Ste. Marie, Ontario, for the sum of $24,480.

Work was resumed this year on the 7th of April, and was completed on the 31st of October, 1913. The work consisted of the rebuilding of the old inner portion of the Government wharf, which was built origiually by private parties and was a jumble of cribs of various sizes. Some of these were removed and new cribs built to replace them, and stone filling with macadam finish, surrounded with concrete face walls, now replaces the old wooden superstructure. The work covers a block 120 feet wide by 226 feet long, and the rubble stone approach 22 feet wide by 144 feet long. An extra crib, 14 feet wide by 88 feet long, was placed in the east face, for which an extra price of $2,640 was authorized. Further improvements were made, consisting of two cribs, one 9 feet wide by 91 feet long, and the other 12 feet wide by 84 feet long, and 237⅔ square feet of concrete decking, increasing the quantity and quality of the surfacing material in the roadway and esplanade approach. These improvements amounted to $2,429.97.

Extension.

This work consists of the construction in a depth of about 18 feet of water of a line of cribwork 243 feet long by 18 feet wide, with a concrete superstructure, and the filling-in with rock of the area behind it 243 feet long by 41 feet wide on the west side of the wharf to fill in a recess and provide the necessary space for the construction of an addition to the warehouse. The progress of the work to the end of this fiscal year consists of the placing of 4,100 cubic yards of rock, 140,820 feet b.m. of timber, 28,734 pounds of iron, 5,520 lineal feet of ballast floor poles in place, and the delivery of some 9,000 feet b.m. of timber and 1,840 pounds of iron.

Instructions were given on 10th June, 1913, to prepare contract plans and specifications in connection with an extension to the Government wharf. On the 10th November, 1913, an Order in Council was passed awarding this work to John O'Boyle, as an extension to his contract for the reconstruction of the approach to the Government wharf, at the price of $111 per foot, or a total of $26,973. Instructions were accordingly given to lay out and begin the work.

Work was commenced on November 15, 1913, and the total expenditure during this fiscal year amounted to $13,913.06.

Repairs.

This work consists of the renewing of the walings on the wharf and general repairs to the concrete superstructure.

Authority was given on 23rd August, 1913, to expend the sum of $2,600, by day labour, in effecting repairs to the Government wharf.

Work was commenced on the 24th of October, and was completed January 15, 1914. It consisted of the placing of 1,300 lineal feet B.C. fir, waling timbers on the face of the wharf, and other general repairs. The total expenditure incurred was $2,493.75.

Repairs to Warehouse.

Authority was given on 20th May, 1913, to expend the sum of $200, by day labour, in effecting urgent repairs to the Government warehouse.

Work was commenced on the 25th of May and was completed on the 16th of July, 1913.

It consisted of repairs to the roof of the warehouse, papering the office and installing temporary waterwork connection to be used during the reconstruction of the approach to the wharf by contractor, John O'Boyle.

In the performance of this work some 200 feet of water-pipe with connecting valves, etc., 37 rolls of wallpaper, 1,000 feet electric light wire, 7 pounds of tinsmith solder, and 22 bags of cement were used at a total cost of $255.26.

Dredging.

An extensive scheme of improvements to the ship channel by dredging was commenced in the year 1912, and at the last session of Parliament a special vote of $150,000 was made to continue this work. Two contracts were entered into with the Soo Dredging and Construction Company, Limited, for the performance of it as follows: Under contract dated 31st of July, 1912, dredging the portion of the main channel of the St. Mary's river, opposite the city of Sault Ste. Marie, as described below under "A"; the excavation of a slip below the Algoma Central Railway Co.'s wharf and the New Ontario dock, as described below under "B"; under contract dated October 14, 1912, the construction of a slip at the New Ontario dock and Coal Co's wharf "C", details given below; and to construct a slip at the Ferry Company's dock, details of which are given below under "D".

(A) *Main Channel.*

The object of this work is to remove that part of the shoal which extends into the river from the Canadian side which lies beyond the lines of the outer ends of the wharves, and make the Canadian channel wider and safer thereby. The length is about 4,000 feet, extending from the New Ontario dock to the east of the Government wharf, but the width is variable and would average about 200 feet, while the grade depth being made is 21·5 feet below a datum level of 582·37, which is the standard improvement plans for the river at Sault Ste. Marie.

Work was commenced on June 1, and was carried on till December 31, when work closed down for the season. During this period, 42,220 cubic yards of rock and other material were removed and scowed away.

The total expenditure of dredging in this channel, during this year, amounted to $135,613.27.

(B) A. C. R. Slip.

The object of this work was to construct a slip between the wharf being built by the Algoma Central railway and the new Ontario dock to enable large boats to unload at either of these wharves. The area covered was 140 feet wide by 800 feet long and the grade depth was 21.5 below the standard improvement plane at Sault Ste. Marie.

An Order in Council was passed on August 6, 1913, authorizing an extension of contract with the Soo Dredging and Construction Company, Limited, of Sault Ste. Marie, Ontario. The work covered by this authorization consisted of the removal of 16,000 cubic yards, place measurement, of class "A" material, to be paid for at the rate of $3.47 per yard, and 12,300 yards, place measurement, of class "B" material, to be paid for at the rate of 50 cents per yard.

On 1st of September, 1913, work was commenced and continued until 31st of December, when work was closed for the season. During this period, 2,519 cubic yards of class "A" material and 17,635 cubic yards of class "B" material were removed.

The total expenditure during the season, 1913, amounted to $18,138.73.

(C) New Ontario Dock Slip.

The object of the work was to construct a slip 320 feet long by 75 feet wide to a depth of 21·5 feet below the standard improvement plane to enable boats to land at the face of the wharf.

On April 14, 1913, authority was received to commence work which had been awarded to the Soo Dredging Company, Limited.

Work was commenced in May, 1913, and 1,867 cubic yards were removed.

The total expenditure involved in this work was $5,861.28.

(D) Ferry Slip.

The object of this work was to provide a slip alongside the ferry dock, 300 feet long by 60 feet wide, to a grade depth of 21·5 feet below standard improvement plane.

Work was commenced on August 2, and continued until September 6, 1913, and 4,830 cubic yards of class "A" material, and 3,776 cubic yards of class "B" material were removed and towed away in scows, a distance of about a mile. Although the contractors had promised faithfully to complete the work during the season, it was impossible to do so and 1,445 cubic yards of rock had to be left over to be removed during the season of 1914.

The total expenditure involved on the work was $20,624.06.

SEVERN.

Severn, a village in the county of Simcoe, population about 100, located 11 miles from Gravenhurst and 14 miles from Orillia. The Grand Trunk railway has a station and yards and handles a large amount of freight. Messrs. Mickle, Dyment Company, Ltd., have large saw mills in operation.

A wharf and shelter were erected at Severn in 1912, but the latter was unfinished by reason of exhaustion of the appropriation for the work.

Authority was given July 23, 1913, to expend the sum of $150 for completing the shelter.

Work was begun July 29, 1913, and completed August 1.

Total expenditure for fiscal year 1913-14 is $49.97.

Dams.

The department maintains two stop log dams on the river at Washago.

Instructions were issued to prepare contract plans and specifications for the construction of new stop log dams; tenders were called but, up to date, the work has not been awarded.

The work will consist in the construction of a stop log dam at both the Big and Little falls and the removal of obstructions from the river at the Big falls. This work is essential for the regulation of the water level in Lakes Simcoe and Couchiching.

Dredging.

The work comprised the removal of a rock shoal at Scull island and sand shoals at Dilworths and at the entrance to Sparrow lake.

On June 27, 1913, authority was given to expend $4,600 by day labour, for the improvement of the channel of the Severn river between the village of Severn and Sparrow lake, and on July 25, 1913, work was begun and completed on November 30, 1913.

The quantities of material removed from shoals amounted to:

	Cubic yards.
Class "A" solid rock	500
Class "B" other material	3,800
	4,300

At a cost of $3,161.20.

SILVER CENTRE.

Silver Centre is a mining district in the township of South Lorrain, on the west shore of Lake Timiskaming, 22 miles south of Haileybury, district of Nipissing. The traffic is quite extensive.

ork of completing improvements to wharf was begun April 28, and continued till August 16.

Work performed consisted of building warehouse 48 by 24 feet, minor repairs to stone approach, making ice-boom and placing it at close of season, placing hand-railing on both sides of approach, raising wharf 3 feet under old shed and raising and moving old shed, building up and grading stone approach 3 feet higher, raising small part of landing head which was not raised last season, bracing piles and placing iron straps on piles, blocks and stringers, placing small quantity of 4-inch sheeting on wharf and splicing and placing fenders.

Expenditure to March 31:—

Labour	$ 1,676 78
Materials	897 90
Total	$ 2,574 68

SOUTH BAY.

South bay, Prince Edward county, is situated between the mainland of Prince Edward county and Waupoos island.

The work embraced under this heading consists of the following:—

Waupoos, Waupoos island, mouth of Black river, Farmer's dock, Collier's wharf, Port Milford, Canning factory and McDonald's wharf.

The community is agricultural in character and there is a canning factory at Port Milford, the only manufacturing industry other than cheese factories, of which there are a dozen or more in the district. The county ships over $1,000,000 worth of cheese per annum and upwards of 400,000 barrels of apples.

On September 23 last, authority was given to have the departmental dredge do the necessary work.

Work was commenced October 6 and closed for the season on November 28, and consisted in dredging at Collier's dock, removing a shoal, triangular in form, with a base of 150 feet and sides about 40 feet each.

Dredging in the Black river a channel, 750 feet to 100 feet, to a turning basin 250 feet long and approximately 250 feet wide.

The removal of a shoal at McDonald's wharf about 60 by 100 feet to a depth of 9 feet.

In doing these works, the dredge removed some 28,640 cubic yards, scow measurement.

SOUTH NATION RIVER.

The South Nation flows into the Ottawa river, some 35 miles below the capital city. There is a sawmill at Jessop's falls, a few miles from the mouth, and the river is used for lumber traffic.

The departmental dredge *Nipissing* worked at the mouth of the river (October 24-31), making a necessary improvement to the entrance. A double cut was dredged some 500 feet long by 48 feet wide to a grade depth of 11 feet.

Three thousand eight hundred and twenty-two yards of clay (scow measure) were removed and spoiled in deep water one mile distant.

SOUTH PORCUPINE.

South Porcupine, a mining town on the Porcupine branch of the T. and N. O. Ry., is situated at the south end of Porcupine lake.

As very extensive gasoline launch navigation is carried on, on this lake, Parliament provided money for the construction of a pilework wharf: approach 12 by 144 feet long, landing-head 33 by 40 feet. In the summer of 1912, the wharf was constructed, but during an ice-shove in the spring of 1913, it was almost completely destroyed.

About September 15, work of repair was commenced, which consisted of replacing and shackling floor system to piles. The work was discontinued on October 23.

Total expenditure is $1,250.59, divided as follows:—

Pay lists	$593 71
Accounts	656 88

STOKES BAY.

Stokes Bay, county of Bruce, is situated on the west shore of the Bruce peninsula, about 30 miles northwest of Wiarton, the nearest railway point. Population, 400. The principal occupations are farming, fishing and lumbering. There are three sawmills located at this place.

Authority was given to expend the sum of $1,500 in wharf repairs by day labour, and work was commenced July 9 and completed September 20.

The work consisted in the renewal of the decking of the entire wharf, which has a length of 320 feet, of which 40 feet is 40 feet wide and the remainder is 20 feet wide.

Total expenditure for fiscal year 1913-14, $1,336.28.

SYDENHAM RIVER.

Sydenham river discharges into the Chenal Ecarté river about 2½ miles west of the town of Wallaceburg. From Wallaceburg down, it is a large, deep, navigable stream; above the town it divides into two branches, north to Wilkesport 14 miles and east to Dresden 15 miles.

On the 12th June last, authority was received to expend the sum of $25 in removing an obstruction in the river opposite Dresden and which amount was increased by an additional $25 on the 4th September following.

On the 3rd of October, an additional expenditure of $100 was authorized, making a total amount of $150.

Work performed between August 29 and November 20, consisted of the removal of a large tree and other material in the river at Dresden, as also the removal of logs and other obstructions between Dresden and Wallaceburg.

A small number of saleable logs were recovered and an amount of $22.49 was realized on same and credited to this work.

Total expenditure for fiscal year 1913-14 is $148.70.

TELEGRAPH AND NIGGER ISLANDS.

Nigger island is situated on the Bay of Quinte about 3 miles from Trenton. A lighthouse is located about 1,000 feet south-west of the island, and the channel is immediately south of the lighthouse and is narrow and crooked with a rocky bottom.

Telegraph island is situated in the Bay of Quinte about 13½ miles from Belleville, and is a small rocky island on which a lighthouse is located. The channel is immediately to the north of the lighthouse, and is comparatively narrow with a rocky bottom.

On 19th April last, authority was given to have the R. Weddell Co. resume work at these places, as on the 18th September, 1912, a contract had been awarded at the following rates, class "A" $4.50 per cubic yard, *in situ*.

On 25th June last, authority was given to remove some 6,300 cubic yards of rock, place measurement at Telegraph island, at $4 per yard.

This work consisted in the removal of shoals at the easterly and westerly ends or approaches to the channel, that at the easterly end having a length of 155 feet on the northerly side and 350 feet on the southerly side by 155 feet in width, and that at the westerly end having a length on the northerly side of 340 feet and a width of 165 feet.

The work in the original channel consisted in widening same by 35 feet, on the northerly side, for a length of 600 feet, and for a width of 65 feet and a length of 1,100 feet, on the southerly side, all to a depth of 14 feet below zero of gauge.

In doing this work, some 9,750 cubic yards of rock were removed from the original channel and 4,803 from the extensions.

The channel as constructed has a mean length of 2,350 feet and a width of 165 feet and is marked, by day, by three red spar buoys on the northerly side and three black spar buoys on the southerly side, on which are placed three red lights on the northerly side and three white lights on the southerly side.

Regarding Nigger island, an area was dredged having a length of 600 feet and a width of 220 feet to a depth of 14 feet below zero.

Some 10,228 cubic yards of rock were removed at this place this season.

Work was carried on from 8th May to 27th October.

Total expenditure for fiscal year, 1913-14, $105,073.86.

THESSALON.

Thessalon is a town of some 1,400 in population, situated on the north shore of the north channel of Lake Huron, and on the Soo Line of the Canadian Pacific Railway, about 50 miles east of Sault Ste. Marie. Lumbering is the chief industry and large quantities of lumber are shipped. There is considerable development of agriculture in the surrounding country. The trade over the wharf consists chiefly of general merchandise and machinery. It is a prominent port of call for all steamboats of the regular lines.

Authority was given on 10th June, 1913, to expend the sum of $1,000 by day labour in effecting repairs to the Government wharf.

Work was commenced on the 3rd July, and was completed on the 28th of July, 1913. The work consisted of replacing of the deck planking where badly decayed and replacing waling timbers along the face of the wharf, and in the performance of it some 22,000 feet of timber and 1,900 pounds of iron were purchased and used, with a total expenditure of $993.38.

THORNBURY.

Thornbury, county of Grey, is an incorporated village of some 1,200 inhabitants, situated at the mouth of the Beaver river, which empties into the Georgian bay, and is a station on the G. T. Ry., 8 miles from Meaford and 14 miles from Collingwood.

Authority was given to prepare contract plans and specifications for harbour improvements; tenders were called, and on the 7th January a contract was awarded to Messrs. Horton & Stoddart for the sum of approximately $15,844.55, schedule prices, and the work done to date consists in the assembling of materials.

This work will consist in the construction of 411 feet of revetment wall having pile-work substructure and concrete superstructure.

Authority was given to expend the sum of $50 in repairs to the breach in the north bank, by day labour, and this work was duly performed by placing large stone in same.

Authority was also given to expend the sum of $2,650 for the construction of cribwork by day labour.

This work was carried on from 5th to 19th January and from the 26th January to the 18th March, and consists in the construction of a crib 35 feet by 20 feet placed at the easterly end of the outer breakwater.

Total expenditure for fiscal year 1913-14, $2,851.20.

TIFFIN.

Tiffin, the lake terminus for the Grand Trunk Railway grain trade from the west. There is no village here, but the elevators are about two miles from Midland.

The Grand Trunk Pacific elevator is a concrete building having a capacity of 2,225,000 bushels of grain, and upwards of 14,000,000 bushels passed through it during the season of 1913. There is also the Aberdeen elevator with 1,000,000 bushels capacity through which there was also a large amount of grain shipped.

The work carried out during the season of 1913 was the removing of a rock shoal and cleaning up of the bottom of the harbour to a depth of 25 feet below elevation 580·00.

This work was let to Canadian Dredging Company of Midland, and was really a completion of their former contract.

The work began on the 25th of April and was completed on July 18th, 1913, and the prices paid were:—$2.25 per cubic yard for class "A" material, and $0.29 per cubic yard for class "B" material, scow measurement. The dredges employed were:

	Class "A".		Class "B".	
The *Leland*	1,583·33	cubic yards	3,000	cubic yards.
The *Sydenham*	45	"	166·66	"
The *Monarch*	1,015·0	"		"
Or a total of	2,643·33	"	3,166·66	"

Class "A" 2,643⅓ cubic yards at $2.25	$5,947 50
Class "B" 3,166⅔ cubic yards at $0.29	918 33
	$6,865 83
Inspection	71 65
"	13 75
Total cost	$6,951 23

TOBERMORY.

Tobermory, county of Bruce, is situated on the northwest extremity of the Saugeen peninsula, and is perfectly sheltered from all winds. It consists of the east and southwest arms, the latter extending from lighthouse point W. by S. ½ S. 900 yards, with an average breadth of 100 yards. The low limestone shore sinks down almost perpendicularly to 7 or 8 fathoms, which depth, over soft mud, will be found all over this arm, excepting near the bottom, where a muddy flat extends 120 yards to a depth of 18 feet. This harbour is too narrow to permit vessels to lie at single anchor, and they are compelled to make fast to the shore, and to protect their sides from chafing against the rock the Government has constructed glance booms for the vessels to lie alongside.

Authority was given to expend the sum of $400 in repairs to the glance booms, by day labour, and this work was carried on from the 14th to 17th July, and consisted in renewing chains and eye bolts, and in drawing the glance booms out of the water, repairing them and having them replaced in the water in the spring, on the opening of navigation.

Authority was also given to expend the sum of $250 in the construction of a cribwork breakwater and repairs to the sidewalks to the lighthouse by day labour.

This work has not been commenced, owing to unfavourable weather conditions, and will not be until the spring.

Total expenditure for fiscal year 1913-14, $257.92.

TORONTO.

Toronto, county of York, is a city of some 445,000 inhabitants, situated on the north shore of Lake Ontario. The harbour is formed of a circular basin, called Toronto bay, 1½ miles in diameter, which is separated from the lake by a large island, formerly a peninsula, about 6 miles long, making a safe, well-sheltered harbour for a number of vessels. There are, at present, three entrances to this harbour, viz.: the eastern, the old western, and the new eastern.

It has many important industries, over 900 factories, including foundry products, wool products, leather, clothing, agricultural implements, distilleries, breweries, etc., etc. It is a station on the C.P.Ry., C.N.Ry., and G.T.Ry., and is a port of call for all the regular lines of vessels traversing the lakes.

Authority was given to expend the sum of $21,000 in the renewal of the superstructure of part of the east pier of the eastern channel, and on the 9th October last a contract for this work was awarded to the R. Weddell Co., for the sum of $13,398.

Work was commenced in November and closed for the season on the 10th December, and consists in the construction of some 20 concrete blocks and the tearing down of some 150 feet of the old work.

Instructions were issued to prepare contract plans and specifications for the construction of groynes and the protection of the island shore, but on 25th July this was authorized to be performed by day labour at a cost not to exceed $5,000.

This work was commenced 15th July and completed 16th September, and consisted in the placing of large stone along the west shore of the island for a length of 410 feet by 9 feet wide and 4 feet deep to prevent the erosion of the shore. Some 2,086 tons of stone were placed.

Authority was given to have the contractors resume work on the extension of the new western channel, which work was awarded to the R. Weddell Co., for the sum of $163,218.24, and work was resumed 28th April and completed 26th December.

This work consisted in the construction of a revetment wall having cribwork substructure and concrete superstructure, having a total length of 1,767 feet, of which 806·4 feet extends at right angles to the new western channel, southerly, and 728·9 feet extends northerly from the northerly pier and 231·7 feet extends westerly from the northerly end of the northerly extension, all at the inner or easterly end of the new westerly channel and all being 16 feet in width.

Instructions were issued to prepare contract plans and specifications for harbour improvements; tenders were called and the work awarded to the Canadian Stewart Co., for the sum of $5,371,372.17, on a unit price basis, and work was commenced on the 7th March and is still in progress and consists in the assembling of materials.

This work will consist in the construction of a sea wall 17,295 feet in length, having pilework substructure and concrete superstructure, a sea wall 18,000 feet in length of cribwork substructure and concrete superstructure, a ship channel and turning basin 6,705 feet in length, having pilework substructure and concrete superstructure, and a retaining wall 6,894 feet in length having pile and crib substructure and concrete superstructure.

On the 15th May, 1908, a contract was awarded to the R. Weddell Co., to construct a new Western entrance to Toronto harbour for the sum of $495,000.

In connection with this work the following extras were authorized:—

For life chain	$ 600 00
Ferry cribs	9,000 00
Small boat landings	500 00
Waling	4,230 00
	$14,330 00

These extras have all been completed and the entire work is finished.

The contract work consisted in the construction of a channel 400 feet wide, having parallel piers on either side,—that on the northerly side having a length of 2,200 feet and on the southerly side 2,535 feet. The northerly pier has a width of 20 feet throughout and the southerly pier also has a width of 20 feet except for 500 feet at the westerly or lake end which is 30 feet in width, all being composed of cribwork substructure and concrete superstructure.

TRENT BRIDGE.

Trent Bridge, county of Northumberland, is situated on the Trent canal, distant about 5 miles from Havelock.

Authority was given to expend the sum of $3,700 in the construction of a wharf by day labour, and work was commenced 22nd September; very little work on the actual construction has been done, but practically all the materials are on the ground. This is owing to the Department of Railways and Canals having taken exception to the site selected for the wharf. The matter is under consideration.

The wharf when built will have a length of 100 feet and a width of 20 feet and have cribwork substructure and concrete superstructure.

Total expenditure for fiscal year, 1913-14; $2,344.77.

TRENTON.

Trenton, county of Hastings, is situated on the north shore of the Bay of Quinte at the mouth of the Trent river, 12 miles west of Belleville. Population, 4,300. It is quite an important commercial and manufacturing centre. It is the terminus of the Trent Valley canal system, and is a station on the main line of the G. T. Railway, Central Ontario Railway, Canadian Northern Railway, and the Toronto-Ottawa line of the Canadian Pacific Railway. It is a port of call for all regular liners. Large quantities of coal are brought in. The exports are apples and cheese. The Canada Iron Mines has a large concentrating plant here.

On 26th and 30th June last, authority was given to complete the dredging at Polley's wharf at this place, and on 10th July, 1913, a contract was awarded to Mr. J. E. Russell at $3.30 per cubic yard, place measurement, for class "A."

Work was resumed on the 16th July and completed 16th August, and consisted in dredging an area 500 feet long by 105 feet wide to a depth of 14 feet below zero.

In doing this work, some 6,138 cubic yards class "A" were removed this season.

On 30th June last, authority was given to perform certain dredging for the improvement of the entrance channel and on the 4th July a contract was awarded to the R. Weddell Co., at the following rates per cubic yard, place measurement: class "A" $3.95, "B" 22 cents.

Work was commenced 17th July and closed for the season on the 29th December.

The work done this season consists in the dredging in the channel for a length of 1,850 feet by a width of 150 feet to a depth of 14 feet below zero, also drilling and blasting an area 500 by 200 feet, also a shoal in the turning basin 250 by 260 feet.

During this season, the dredges removed some 50,000 cubic yards, class 'B,' and 13,160 cubic yards of class "A" were drilled and blasted.

Total expenditure for fiscal year 1913-14, $67,887.87.

TROUT RAPIDS.

The Trout or Throat rapids, district of Thunder Bay and Rainy River, are on the Winnipeg river, 12 miles north of the town of Kenora. Improvements were asked for to prevent excessive backing up of water in the river, with consequent flooding, damage, etc.

An investigation was made and a report submitted May 3, 1913.

In this report, the removal of approximately 200 cubic yards of rock at an estimated cost of $1,000 was recommended as sufficient to alleviate conditions.

VAIL'S POINT.

Vail's point, county of Grey, is situated on the south shore of the Georgian bay, about 15 miles from Owen Sound, and is a fine farming district.

Instructions were issued to prepare contract plans and specifications for the construction of a wharf; tenders were called and the work awarded to Messrs. Grier and Creighton, of Owen Sound, for the sum of $6,983; work was commenced 23rd February, and is still in progress.

The work done to date consists in the commencement of the stone approach and the assembling of materials on the ground.

When completed, the wharf will consist of a structure composed of solid crib-work with an "L" at the outer end having a length of 150 feet with an offset of 50 feet and a width of 20 feet, and a stone approach 150 feet long by 20 feet wide on top.

Total expenditure for fiscal year 1913-14, $112.

VICTORIA HARBOUR.

Victoria Harbour, township of Tay, county of Simcoe, is situated on Hog bay, an inlet at the easterly end of Georgian bay. It is a well-sheltered harbour with a good approach. It has a population of about 1,700 and is the headquarters of the Victoria Harbour Lumber Company, who operate three large saw mills. The Grand Trunk Midland branch runs through the town.

On the opposite side of the bay, and about a mile distant, is Port McNicoll, the lower lake terminal of C.P.Ry. boats. That company have a large elevator with a capacity of 4,500,000 bushels, also docks with very large accommodation; it is also the terminal of their Peterborough line. Ferries operate between Port McNicoll and Victoria harbour at frequent intervals.

The inhabitants have been put to considerable inconvenience in not having a public wharf. Although the lumber company have two wharfs they are fully occupied by their own business, and it is difficult at times for the ferries to make a landing, therefore other boats plying on these waters object to call at Victoria harbour on this account. Besides the regular inhabitants of these two ports, there is quite a large interchange of travel between the two railways at this point.

The Government obtained a water lot from the Victoria Harbour Lumber Company at the foot of Ellen street, and let a contract for a concrete wharf 150 feet long by 24 feet wide, with stone approach 50 feet long, and a warehouse 20 by 40 feet, to Messrs. McFarlane, Pratt, Hanley, Limited, of Toronto, on October 21, 1913, work to be completed December 10, 1914, and based on schedule of prices.

Total expenditure to end of fiscal year 1913-14	$9,135 78
Inspection	285 40
Total	$9,421 18

Dredging.

Dredging was undertaken here in 1913 for the improvement of the approach to the harbour and to clear the bottom of the harbour proper to a depth of 25 feet below zero, 580·0.

The work was let to the Canadian Dredging Company of Midland at $2.25 per cubic yard for class "A" material and 12½ cents per yard for class "B" material, scow measurement.

This work was carried out from the 25th of April to the 31st of July, and the dredges employed on the work were:—

	Class "A." cubic yards.	Class "B." cubic yards.
The *Leland*	2,136·6	26,084·2
The *Excelsior*	7·0	116,600·17
The *Sydenham*	845·06	94,243·8
The *Monarch*	3,493·5	23,670·0

The totals being:—

Class 'A'	6,482·16	cubic yards	@ $2.25	$14,584 86
Class 'B'	260,598·17	" "	12½	32,574 77
Overcast	9,677	" "	0.11	1,061 47
				$48,224 10
Total inspection				920 01
Sweepings				103.50
Total cost				$49,247 64

WELLINGTON.

Wellington, county of Prince Edward, is situated at the westerly end of West lake, which adjoins Lake Ontario. Population 1,000. It is located in an extensive agricultural section.

Authority was given to prepare contract plans and specifications for harbour improvements, and tenders were called, but, up to date, the work has not been awarded.

The proposed work will consist of a wharf of round piling 300 feet long by 18 feet wide; an entrance pier formed of round piles on each side filled with stone, 1,000 feet by 20 feet, a line of piling 200 feet and a line of piling 400 feet, also the dredging of the harbour and entrance thereto to a depth of 12 feet below zero.

WENDOVER.

Wendover is a post settlement in Prescott county, on the south shore of the Ottawa river, 31½ miles below Ottawa, and is also a station on the Canadian Northern railway 24 miles from Hawkesbury.

Early in April, considerable ice cutting was done around the wharf at a cost of $45.

A passage way 26 feet wide and 30 feet long of structural steel beams, with wood covering, was constructed over low level landing September 1-30. Minor repairs were made to bracing and flooring.

Expenditure to March 31:—

Labour	$263 25
Materials	364.01
Total	$627 26

WHEATLEY.

Wheatley, Kent county, is a village situated on the North Shore of Lake Erie and on the line of the Père Marquette Railway, about 30 miles south-west of Chatham and 44 miles by rail from Windsor. Population about 1,000.

On the 9th July last, authority was received to expend the sum of $900 by day labour in making the necessary repairs and renewals required to the approach to the landing pier.

Operations were commenced on the 14th August and completed on the 28th October, during which time five bents, consisting of four piles each, were driven at ten foot intervals and decking sixteen feet wide built on same. At the inner end of these bents and for a distance of approximately twenty-five feet, an approach was constructed consisting of light concrete walls with clay and gravel filling between same and protected on both sides with heavy rip rap.

In the execution of repair work the following approximate amounts of material were used: 400 lineal feet of piling, 7,700 feet, b.m., timber, and 840 pounds of iron.

The total expenditure for the fiscal year 1913-14 is $802.52.

WHITBY.

Whitby, county of Ontario, is situated on the north shore of Lake Ontario, 30 miles east of Toronto. Population 2,300. It is an important harbour of refuge for smaller craft.

Authority was given to expend the sum of $20,000 for harbour improvements, and on the 13th January, 1913, a contract was awarded to Messrs. Whitney and Code for the sum of $20,000.

Work was commenced 2nd July and closed for the season 24th December, and consists in the construction of some 120 feet of the esplanade wall and the removal of the old superstructure to one foot below zero for a length of 1,025 feet.

Total expenditure for fiscal year, 1913-14, $7,441.08.

Dredging.

On 28th June last, authority was given to perform certain dredging for which a contract had been awarded on the 11th July last to Mr. John E. Russell at the following rates per cubic yard, in situ, class "A" $2.25, "B" 16 cents.

Work was commenced 21st July and completed 15th December, and consisted in dredging in the harbour and approaches to a depth of 16 feet below zero.

The area dredged has a length of 2,720 feet and a width varying from 120 to 320 feet.

In doing this work, some 96,305.5 cubic yards, place measurement were removed.

Total expenditure for fiscal year, 1913-14, $15,929.73.

WIARTON.

Wiarton, Bruce county, is a prosperous town at the head of Colpoy's bay, 32 miles west of Owen Sound by water. It is the terminus of the Georgian Bay and Lake Erie branch of the Grand Trunk railway. It has a number of saw mills and other important industries. Population, 2,300.

On 10th July last, authority was given to have the departmental dredge *Industry* perform certain work at this place, and this was carried on from the 16th to 25th July and consisted in dredging a channel from the Government breakwater to the town wharf, having a length of 820 feet and a width of 200 feet, also making a cut alongside the westerly side of the town wharf 300 feet long by 50 feet wide all to a depth of 14 feet below zero.

In doing this work, some 13,486 cubic yards, scow measurement, were removed.

WINDERMERE.

Windermere on Lake Rosseau, in the district of Muskoka, has a resident population of about 100, but it is a great centre for tourists and there are a large number of summer residents in the immediate neighbourhood. There are three hotels with accommodation for upwards of 300 guests.

On June 10, 1913, authority was given to expend the sums of $2,000 and $1,000 for completing the wharf and the building of a warehouse.

The work was commenced in the early part of June and completed on November 30, 1913, at a total cost of $2,999.65, including a lighting plant giving two inside and two outside lights. The work was carried out by day labour.

Total expenditure for fiscal year 1913-14, is $2,999.65.

WINDSOR.

The city of Windsor is situated on the Detroit river in the county of Essex, and is a terminus in Canada of the Grand Trunk, Canadian Pacific, Michigan Central and Père Marquette railways. It is a thriving and prosperous city with a population of about 25,000. It is a very important port of entry, the customs duties collected in the city together with the adjoining town of Walkerville, amounting to approximately $3,752,995.59 for the fiscal year 1913-14. During the fiscal year 1912-13, 1,094 vessels arrived at this port having a total tonnage of 562,982 tons.

At the last session of Parliament, the sum of $77,000 was voted towards the construction of a public landing dock and warehouse at this point.

On the 25th January, 1913, a contract was awarded to Mr. A. E. Ponsford, of St. Thomas, for the construction of the landing dock for the amount of approximately $47,809.41 to cover the cost of constructing a dock 484 feet long.

On the 24th June last, an Order in Council was passed granting authority to build an additional length of 169 feet 6 inches to the dock, work to be performed by the contractor, Mr. A. E. Ponsford, and the price to be the unit price of main contract and entailing an expenditure of approximately $19,030.

On the 2nd of June last, authority was received to drive piling required for foundation of proposed warehouse at a cost of $768.81.

On the 1st of August, authority was received to expend an additional sum of $337.60 in substituting reinforced concrete piles above water level in centre of pier in place of timber.

Active operations were commenced on April 21 and ceased on January 10, 1914, and were again resumed on February 25, 1914, and were still in progress on the 31st March.

The work performed to date consisted of the completion of 427 feet 9 inches of landing dock, composed of pile substructure and reinforced concrete superstructure. In the remaining 225 feet 9 inches of the work the substructure is entirely completed excepting for being lined up and for the securing in place in the rear of the structure of about 95 lineal feet of sheeting. In addition, concrete footing blocks are already in place for a length of 39 feet, and the pile foundation for warehouse has been completed.

Plans and specifications were prepared for a modern reinforced concrete warehouse, and on February 25, of this year, a contract for its construction was signed by A. E. Ponsford, of St. Thomas, Ontario.

Arrangements were made with the Grand Trunk railway by the department to lease all the land required for this dock at a price of $1,200 per annum.

The city of Windsor has now, in accordance with an agreement previously made, started the construction of a roadway in rear of that portion of dock built to date.

The total expenditure for fiscal year 1913-14, including inspection, is $49,715.94.

PROVINCE OF MANITOBA.

ASSINIBOINE RIVER.

Owing to the large quantity of water coming down the Assiniboine river during the high-water period, it was found necessary to provide dykes on the south side of the river in parishes Baie St. Paul and Poplar Point, to prevent the flooding of a large tract of good farming land.

By means of ploughs and scrapers earth embankments were built at necessary points.

The cost of this work was $5,117.

DELTA

Protection Work.

Repairs were made to the protection work at the mouth of the channel at Delta. This work was damaged by ice. The protection consisted of round piles driven 5 feet 3 inches, centre to centre; to these piles four 3 by 12-inch horizontal plank were bolted with a 4 by 8-inch timber, set vertically and bolted through the plank to each pile. Two thicknesses of 1-inch plank 3 feet long were driven vertically and spiked to the bottom horizontal plank. This 1-inch planking was carried away by the ice.

The repairs to this work consisted of the removal of the 4 by 8-inch timber from each pile, the driving of 3 by 12-inch close-faced sheet piling 14 feet long and a 2 by 6-inch waling bolted to the sheet piling. This piling was driven as close to the top of the old work as the hammer could go.

The cost of the work is $951.81.

GIMLI.

Protection Work

The object of this work is the protection from wave erosion of that part of the town of Gimli lying south of the Government wharf.

In the year 1908-09, some 2,420 lineal feet of protection work was built and has had the desired effect, but owing to the rotting of piles, washing away of brush, etc., it was found necessary to renew almost the whole work. The first work consisted of two parallel rows of piles, 4 foot centres between rows, with piles driven at 8 foot centres on the outer row and 4 foot centres on the inner row. The space between the piles was closely packed with bundles or facines of willow brush, the brush being held down by cross pieces and longitudinal spars which are placed on top.

While the above work did what was expected of it, still the lasting properties of the brush were such that the action of the waves washed it away, thus exposing the bank to the eroding action of the waves as before.

It was decided to change the class of work and introduce sheet piling instead.

The piles which were rotted were replaced, and intermediate piles were driven on the front row, thereby strengthening the structure where most needed. Six by 8 inch waling was bolted to the front row of piles and B.C. fir, 3 by 12 by 12 foot sheet piles, were driven and spiked to waling. Braces were bolted from back to front row of piles.

Out of the original 2,420 feet of work, 1,750 feet were constructed this year, at a cost of $5,426.94 leaving 670 feet more to construct.

Expenditure, $5,426.94.

Dredging.

The berth back of the Gimli pier, which is used largely as a harbour of refuge, being found too small and not deep enough for present requirements was extended and deepened.

Departmental dredge *No. 204* worked from August 13 to October 7, removing 19,198 cubic yards sand, clay and boulders, at a cost of $3,648.55 equal to 19 cents per cubic yard, which includes 2½ per cubic yard for dredge vessel repairs.

The material was scowed one mile and a depth of 7½ feet below zero was provided.

GULL HARBOUR.

An extension to the old wharf at Gull Harbour was found necessary. Tenders were called for and a contract for 100 feet of new work was let to William Dewar of Selkirk, for $8,944.

The wharf is built of pile bents with caps, stringers, flooring and curb. Close-faced sheet piling is driven around the entire extension and the whole filled with stone.

At the end of the fiscal year, the round and sheet piling was driven, the caps and stringers and about fifty cords of stone were placed.

Repairs to Wharf.

The wharf at Gull Harbour, Lake Winnipeg, was built between 1901 and 1904. It was in bad condition and extensive repairs were needed. Materials were brought and delivered during the summer and the repairs made after the ice had become strong enough to do work.

Repairs consisted of driving round piles on the outside of the old cribbing; the caps, stringers, flooring and curb were renewed.

Expenditure, $4,746.48.

HNAUSA.

Repairs were made to Hnausa wharf, consisting of replacing rotted sheet piles and renewing curbing and main strapping at a cost of $954.24.

LAKE MANITOBA.

A survey for the purpose of ascertaining the practicability and cost of lowering Lake Manitoba was made during November, December and January.

The outlet from the lake is the Fairford river. At two other points, low land extends from the lake, viz.: from the south end of the lake to the Assiniboine river and from Doghung bay to Lake St. Martin. Surveys and levels of these localities had already been made and it was known that both were impracticable. Hence this survey was confined to the outlet through the Fairford river and to determining the amount of land that will be benefited by lowering the water and the effect on navigation. The survey at Fairford extended from a point about one mile into the lake from the mouth of the river, covering a wide area and extending towards the shore and down the river to a considerable distance below the foot of the rapids.

The bed of the present river, near the lake, is solid limestone, The survey, however, established the fact that the river is not flowing out of the lake over the lowest depression in the rock. Across the point on the north side of the river, the rock is so low that it is possible to excavate a canal, without reaching bed rock, of sufficient depth to lower the lake two feet.

In the prosecution of this work it is thought best to first cut a 45-foot towing channel in the lake, then a cut 120 feet wide through the point north of the river, then to clean out the river below the point. The estimated cost of this work is $35,250, not including the cost of the dredging plant. The time required will be upwards of two years.

The land south of township 25, was examined and found that the amount that would be benefited by lowering two feet to be 83,192 acres. As the snow was deep and transportation and stopping places difficult to obtain, no survey was made at the north end of the lake, but from existing surveys showing sloughs, etc., and with the knowledge gained on the south end of the lake, it is estimated that the amount to be reclaimed amounts to 65,200 acres. Total, 148,392 acres. If the lake is lowered one foot, 74,196 acres will be benefited.

A special survey was made of Dog lake and during periods of high water, both north and south winds raise the water on Lake Manitoba which overflows into Dog lake; a canal could be cut from the south end that would lower the water. If, however, Lake Manitoba be lowered there would not likely be any necessity of doing any thing to lower Dog lake.

There are many shallow places on the lake. Two large shippers have recently chosen the all-rail route from Lake Manitoba points to Winnipeg in preference to water and rail, and as the shipping on the lake is now almost nil, little consideration need be given to navigation.

Other points of interest as summer resorts, shooting grounds, club houses, wharfs, &c., are not of sufficient importance to offset the benefit to be derived to the farming community adjacent to the lake.

NETLEY LAKE.

Netley lake, Selkirk county, is south of Lake Winnipeg and west of the Red river from which it is separated near the south end by a very narrow ridge only five feet above water at the highest point and falling rapidly each way.

The neutral outlet from the lake leads to Lake Winnipeg and is known as Salamoina's channel.

During continued northerly winds, the water is raised in Lake Winnipeg and this in turn raises Netley lake, flooding a large area of hay land around the lake.

For the purpose of regulating the elevation of the water it was decided to cut a channel across the narrow ridge at the south end from the lake to the river.

The water in Netley lake is deep enough for river boats and this channel would allow access to 4 or 5 miles of the west shore where both wood and hay can be received for Winnipeg and other river points.

Departmental dredge *No. 202* worked on this cut from October 3, to October 17 removing 6,645 cubic yards clay at a cost of $917.24, equal to 13.8 cents per cubic yard, which includes 3.8 cents charged to dredge vessel repairs. Length of cut about 285 feet, width 90 feet and depth of water 7 feet. All the material was cast over.

PELICAN LAKE WHARF.

Owing to the extreme low water in Pelican lake, Souris county, and to the fact that the class of boats using the new wharf were of small size the wharf was too high to land to or from.

To overcome this, a landing platform was constructed on either side of the wharf as near to shore as possible, so as not to interfere with the wharf at a later date should the waters of the lake rise to former elevations.

This platform was laid upon 5 by 10 inch stringers which were placed upon existing waling and steps leading down from a small platform level with the deck of the wharf. This was built from both sides of the wharf so as to afford shelter to boats in stormy weather. This work was done at a cost of $175.48.

Grading the approach to the new wharf was also completed at a cost of $144.02.

RED RIVER.

New entrance channel.

Operations were begun at the new entrance channel on November 16th, 1913, and ceased on March 21, 1914.

During the season, the Department of Marine and Fisheries built two range lights for the use of the new channel.

The work performed was to extend different types to meet conditions that exist through the construction of the work.

The protection work on the east side of the new channel, one thousand feet, consists of two rows of piles driven parallel to the centre line of channel, 8 feet apart and 4 feet centres longitudinally. On the channel side of the work, 10 by 12 inch B.C. fir wales were bolted on the top and at water level and used as guides for 4 by 12 by 24 and 30 foot grooved and tongued B.C. fir sheet piling; cross braces of round tamarac

9 to 10 inches diameter were bolted from the front to the back row. Longitudinal round tamarac bracing were bolted on top of cross-braces against back rows of piles and angle braces of tamarac were used to further strengthen the work.

This type of work was also continued on the west side of the channel, in all 2,060 feet of new work.

At the end of fiscal year 1912-13, 300 feet of similar work, west side, remained unfinished; this work was completed in the present year. For a distance of 440 feet, the old work, driven in 1911, was strengthened by driving intermediate piles in the channel side row and bracing with 9 to 10 inch tamarac braces to back row of piles. 10 by 12 inch wales were bolted on the piles and 4 by 12 by 24 foot grooved and tongued sheet piles were driven and bolted to the work with screw bolts. Longitudinal braces were also bolted along back row of piles to further strengthen the work.

For a distance of 85 feet on west side, work done last year was sheet piled on the channel side and angle and longitudinal braces of tamarac were bolted to the work to further strengthen it.

Owing to the action of the waves, during the heaviest storm of last year, a portion of the lighter type of work, was washed out on the west side of the channel, for a distance of 75 feet; this was replaced by the same type of work, but of a heavier character, 4 by 12 by 24 foot sheet piles, grooved and tongued, were used and bolted to 8 by 10 waling with three-quarters inch screw bolts.

During the open season of 1913, Lake Winnipeg averaged 4 feet above zero of the water gauge, higher than it has been for years, and the result was the action of the waves washed a channel out between the shore ends of the work and the bank of the river at its mouth, causing considerable silting in the channel proper. These openings have been closed up by constructing 158 feet light type of work on the west side, and 32 feet on the east side.

Expenditure, $43,584.37.

Dredging.

This dredging was for the purpose of deepening the water in the new channel between the mouth of the Red river and Lake Winnipeg.

During the previous winter, protection work was extended out to 1,800 feet from the shore. Sounding having shown the necessity for further dredging, departmental dredges *Nos. 201, 202* and *205,* worked in the channel.

Dredge *No. 201* worked from April 24 to October 1 removing 93,744 cubic yards silt, sand and clay at a cost of $10,539.98, equal to 11·24 cents per cubic yard. This includes 2·28 cents per cubic yard for dredge vessel repairs.

The dredging was in the channel in the lake from Station 2 to Station 37. All the material was pumped over the protection work or away from the channel on both sides.

Dredge *No. 202* worked from May 16 to June 5 and from August 9 to September 30 removing 22,892 cubic yards clay at a cost of $4,077.27, equal to 17·81 cents per cubic yard. This includes 3·8 cents per cubic yard for dredge vessel repairs.

The dredging was done between centre channel and the lake shore for the purpose of increasing the width of the channel and easing the turn at centre channel. This material was scowed 1½ miles.

Dredge *No. 205* worked from May 15 to June 5 removing 10,990 cubic yards clay at a cost of $1,485, equal to 13·5 cents per cubic yard. This included 3·2 cents per cubic yard for dredge vessel repairs. This dredging was done between centre channel and the lake shore for the purpose of increasing the width of the channel. This material was scowed 1½ miles.

Repairing Banks above St. Andrews.

During the period when St. Andrews dam is in operation and the Red river is maintained at elevation 703·0, the banks of the river are being constantly washed away. It was found necessary to protect the river road where it approaches the bank, also to repair two bridges which have been affected by the raising of the water.

The rock dredged from the channel at the north end of St. Andrews lock and which had been blasted the winter previous was placed along the bank, at water level.

In the case of bridges, they were removed and corrugated galvanized iron pipes were put in with a stone and earth fill to the level of the road.

The length of bank repaired was 3,048 feet. The cost of this work was $2,962.80.

ST. ANDREWS.

Approaches to Bridge.

The construction of the approaches was continued this year. During the winter months, the steel work was erected and, with the arrival of mild weather, the concrete work was continued.

This work consists of an approach to both the east and west ends of the steel service bridge. Each approach consists of an earth embankment held in place by a retaining wall, and a steel aqueduct from the embankment to the main bridge, the towers of which are carried on concrete pedestals. On the east side, a road was constructed from the end of the approach to the main road. On the west side, a Strauss trunnion bascule lift was provided over St. Andrews lock.

The quantities in this work are as follows:—East side, earth embankment and road 1,930 cubic yards, concrete pedestals for hand railing 47·7 cubic yards, excavation for same 25·8 cubic yards, retaining wall (concrete) 211 cubic yards, excavation for same 206 yards, concrete in pedestals for steel work 121·5 yards and excavation for same 235 yards.

On the west side, embankment, 1,825 cubic yards, concrete pedestals for hand railing, 24·4 yards, excavation for same 25·4 yards, concrete in retaining wall and abutment 1813·9 yards, excavation for same 3515·9 yards, concrete in pedestals for steel work 95·3 yards, excavation for same 142 yards, excavation for drain 262·7 yards, stone filling for drain 537·5 yards, tile drain 570 lineal feet, and reinforcing steel 35,640 pounds.

For both sides, total steel work was 351,728 lbs.; wooden floor, 84,226 feet, b.m.; hand railing, 20,100 lbs. The bascule lift was contracted for at a lump sum.

Allowance was made for 499 cubic yards of the excavation in the west retaining wall and abutment as hard pan.

Piling of a total length of 2,447 feet was delivered but not driven. An extra was allowed for the steel plates over the joint between the moving and the fixed floors of the lift span. Deductions were made for the following: One railway safety gate, one stove for operator's house and seven window shades for the same place.

The cost of the work was $47,335.96.

Pavement of Highway Bridge.

The highway on top of St. Andrew's dam was completed by the laying of an asphalt pavement and wooden curbing. Tenders were called, and the contract was let to D. J. Harry Webb, of Winnipeg, for $6,290.

The length of this work was 931 feet, with a width of 23 feet. The curbing was 6 by 6-inch timber bolted every 18 inches through the roadway to the dam. The material for this work was brought from the asphalt plant of the city of Winnipeg by barge to St. Andrew's dam.

A 1-inch binder course of broken stone and asphaltic cement was laid, with a second course composed of a mixture of pure bitumen, sand and pulverized limestone. Portland cement was dusted on top and the whole work rolled with a gasoline roller. The curbing was given two coats of paint before laying.

A drawback of 20 cents per square yard was retained from the contractor as a guarantee for the maintenance of this work for ten years.

Total cost, $6,310.

Fishway.

The contract for the fishway was let to Wm. Newman & Co., of Winnipeg, for $4,456. This work was started about April 1, 1913, and is now in working order.

The work is of reinforced concrete and has a channel 5 feet wide and 4 deep, of a length of about 190 feet in two parallel sections. The rise of the fishway is from an average water level of 684·0 to 703·0, the regulated water level of St. Andrew's dam. This channel is divided into 32 pools by 33 flashboards. There is a drop of about 6 inches between each pool. The entrance to the channel is protected by a wooden screen, from driftwood.

The cost of this work is $6,707.90.

Superintendent's Residence at Lockeport.

The foundation for this was put in during the previous fiscal year.

During 1913-14, a drain and cesspool were put in from the cellar and the residence completed.

This work consists of a concrete foundation to the ground level, then 2 feet of granite foundation, and the walls are of Oriental brick. Its general dimensions are 48 feet frontage, with a depth of 39 feet; there is a verandah at the south front of the house 18 feet by 10 feet; the house has two wings, and the area at the back 21 by 14 feet, the entrance to which is through a pergola.

All work was done by day labour except the plumbing.

Expenditure, $7,178.11.

Dredging.

The dredging at this place was for the purpose of removing rock blasted during the previous fiscal year.

Considerable difficulty was experienced in the spring in holding the dredges in place and moving to allow steamers to pass, owing to the swift freshet current.

Dredge *No. 202* worked from June 9th to August 7th, removing 5,162 cubic yards of rock. The expenditure amounted to $3,891.70, equal to 75.41 cents per cubic yard, to which add 3.8 cents par cubic yard for dredge vessel repairs.

Dredge *No. 205* worked from May 7th to May 14th and from June 9th to July 1st, removing 3,103 cubic yards, at a cost of $2,270, equal to 73·12 cents per cubic yard, to which add 3.2 cents per cubic yard for dredge vessel repairs.

SELKIRK.

The ice in going out in the spring did considerable damage to the wharf.

The repairs consisted in renewing fenders, curbing, decking and some other minor repairs.

The expenditure amounted to $371.67.

Marine Railway.

During the month of October, men with horses and carts were placed at work removing earth from the cut, above the water, on the site of the proposed marine railway. This material was graded around the top end of the incline.

Material was purchased to lengthen the dipper arm on dredge *No. 205* to enable material to be dredged to grade at the outer end of the incline.

Six bore holes having a total length of 150 feet were put down to test the bottom below the proposed marine railway track.

Soundings were taken over the area dredged during the fall, also across the river on a prolongation of the centre line.

On March 9, a contract for $72,000 with the Grandall Engineering Company to build the railway was executed. The company began work immediately and at the end of the fiscal year had delivered 120,000 feet timber, 217 piles and 45,300 lbs. bolt iron and reinforcing steel, amounting in value to $9,072.

The cost of the other work enumerated above—earth excavation, dipper arm, bore holes and soundings amount to: labour, $1,288.05; materials, $444.86; making a total of $1,732.91.

Mooring Posts, West Slough.

As the west slough, Selkirk, is used by the shipping interests as a winter harbour and is subject to strong currents and drift ice at times of high freshets, it was found necessary to place mooring posts for their safety.

These posts consist of a cluster of four piles driven as closely together as possible, and bolted to each other. There are fifty clusters in all, a row on each side of the slough extending northerly 3,600 feet from the Government shipyard. The piles were all 35 feet in length.

Total expenditure, $1,938.90.

Dredging.

Selkirk slough forms the winter harbour of nearly all the steamboats on Lake Winnipeg and the Red river. The Public Works shipyard is located near the head of the slough. The Government dredging fleet winters at this yard.

On account of the increasing traffic during recent years, the shores are washing down and the water becoming shallower. Advantage is taken at the first and last of the seasons, when dredging cannot be done elsewhere, to do necessary work here.

Departmental dredges *Nos. 202, 204,* and *205* were employed as follows:—

Dredge *No. 202* worked from April 28 to May 7, and from October 21 to October 29, removing 4,342 cubic yards mud and clay, at a cost of $917.24, equal to 21·21 cents per cubic yard. This includes 3·8 cents per cubic yard for dredge vessel repairs.

Dredge *No. 204* worked from April 24 to May 6, removing 4,956 cubic yards, at a cost of $1,100, equal to 22·2 cents per cubic yard. This includes 2·5 cents per cubic yard for dredge vessel repairs.

Dredge *No. 205* worked from April 18 to May 6, removing 8,924 cubic yards sand and clay, at a cost of $1,200, equal to 13·45 cents per cubic yard. This includes 3·2 cents per cubic yard for dredge vessel repairs.

The slough is protected and there was no lost time from storms. All the material was scowed 2 miles.

Expenditure, $3,217.24.

Fish Hatchery.

A request having been made for dredging at the end of the suction pipe leading to the Selkirk fish hatchery, departmental dredge *No. 202* worked at the hatchery from October 18th to October 20th, removing 413 cubic yards at a cost of $164.35, equal to 39.79 cents per cubic yard. This includes 3.8 cents per cubic yard for dredge vessel repairs.

The possible dredging time was 31 hours and the lost time, chiefly in towing to the work, amounted to 19 hours, being 61 per cent of the possible time.

Marine Railway.

The work of dredging for the new marine railway at Selkirk was started in October. The dredging extended from a point where the water was 15 feet deep, about 295 feet from the shore, to the shore, thence 255 feet into the river bank. At the outer end, the dredging was about 200 feet wide and it narrowed to 60 feet wide at the shore end.

The outer 300 feet of the basin dredged could not be taken down to grades as the dipper arms were too short. The work was done by departmental dredges *No. 204* and *No. 205*.

Dredge *No. 204* worked from October 9th to November 1st, removing 14,460 cubic yards clay and gumbo, at a cost of $1,652.63, equal to 14.42 cents per cubic yard. This price includes 2.5 cents per cubic yard for dredge vessel repairs.

Dredge *No. 205* worked from October 9th to October 30th, removing 13,386 cubic yards clay and gumbo, at a cost of $1,560.03, equal to 11.65 cents per cubic yard. This price includes 3.2 cents per cubic yard for dredge vessel repairs.

SNAKE ISLAND.

Dredging.

The improvements to the lagoon harbour of the Snake Island fish hatchery, Lake Winnipegosis, Dauphin county, consisted of removing some shallow places from the south entrance, the deepening of the channel to 6 feet through the harbour and the finishing of the north entrance. This entrance serves a double purpose. It was much needed to enable boats to make harbour in certain conditions of weather and to provide a source of pure water supply for the hatchery. Originally, the Government built a pier into the lake in front of the hatchery, but the ice shoves, at a time when the water was required, resulted in the pier being partially destroyed, the pipe broken and the spawn lost. The pier rested largely on bed rock and could not be secured against heavy shoves. During the fall, the suction pipe was laid to the north entrance. A basin 40 feet square and 10 feet deep was dredged in the north entrance to provide for the suction end of the pipe. The material in the basin was too hard for the orange peel and some blasting was done by the Marine and Fishery Department. Departmental dredge *No. 203* worked from May 24th to September 6th removing clay, gravel, boulders and rock as follows:—

South entrance	331	cubic	yards.
North entrance	6931	"	"
Embankments	552	"	"
Boat harbour	338	"	"
Channel through harbour	2567	"	"
	10,749	"	"

The cost of this work was $4,712.05, equal to 43.96 cents per cubic yard, which includes one tenth of one per cent for dredge vessel repairs.

The high rate per cubic yard is owing to unforeseen difficulties in releasing the dredge from the bar where it had been driven by storm late last fall, the unsatisfactory service of the Government tug *Irene* which has since been scrapped, and the hardness of the material encountered in the cut through the bar at the north entrance.

The possible dredging time was 1,129 hours and the time lost as follows:—

	Hours.
Storms and weather	64
Repairs	214
Holidays	35
Towing and preparing for work	10
Moving dredge and changing cut	12
Driving piles	45
Fitting out and laying up	256
Miscellaneous	11
Total lost time	647

The lost time equals 57¼ per cent of the possible time.

VICTORIA BEACH BAY.

Dredging.

The dredging at this place was part of the original design for a harbour when the breakwater was built.

This having been finished, departmental dredge *No. 204* worked from July 16 to August 7 removing 7,493 cubic yards sand, clay and boulders at a cost of $1,875.12, equal to 25 cents per cubic yard, which includes 2·5 cents per cubic yard for dredge vessel repairs. The scows were towed one mile. Depth of water, 7½ feet below zero.

WINNIPEG.

Dredging.

Owing to the Red and Assiuiobine being silt-bearing rivers, the channel dredged at Winnipeg last year required dredging this year. This dredging had also to be extended both up and down stream and consisted of two cuts from a point 1,395 feet north of the N. T. Railway bridge to the Broadway bridge. South of the Broadway bridge there were three cuts for a distance of 1,040 feet.

The minimum of water required is 10 feet, but as the bottom was soft and the channel rapidly fills with sediment, the depth was made greater.

The work was done by departmental dredges *No. 204* and *205* as follows:—

Dredge *No. 204* worked from May 12th to July 10th, removing 23,677 cubic yards silt, sand and mud, at a cost of $3,801.10, equal to 16·06 cents per cubic yard. This item included 2·5 cents charged to dredge vessel repairs.

Dredge *No. 205* worked from July 3rd to October 7th, removing 50,973 cubic yards silt, sand and mud, at a cost of $6,520, equal to 12·8 cents per cubic yard. This item included 3·2 cents per cubic yard charged to dredge vessel repairs.

WINNIPEGOSIS.

Dredging.

The town of Winnipegosis, near the mouth of the Mossy river, is the distributing and receiving point for all Lake Winnipegosis trade.

In entering the lake, the Mossy river flows through a submerged channel which is exposed to severe storms and requires frequent dredging.

After finishing at Snake island, departmental dredge *No. 203* worked from September 7th to October 14th, removing 5,203 cubic yards of sand and clay. During the windy weather, the dredge was employed in the river chiefly improving the dock where the plant winters. The quantity excavated here was 2,035 cubic yards.

The expenditure was $2,352.44, amounting to 29.97 cents per cubic yard, which includes one-tenth of one per cent for dredge vessel repairs.

The depth of water made was 7 to 8 feet, and the material was scowed one mile.

SASKATCHEWAN.

CRAVEN DAM.

Minor repairs were made to the old dam to close up leaks and to strengthen it generally. These consisted in placing rock on the down stream side where necessary and lining the up stream side with gravel, clay and brush. This method has been found effective in stopping leaks that showed from time to time.

The fish ladder should be extended as the bottom of the river has scoured and fish are unable to ascend the ladder at low water. This will be attended to during the summer when the stage of water will admit.

The dam in its present condition is safe and will require no further attention to effectively maintain the desired level in Last Mountain lake.

LAST MOUNTAIN LAKE.

The usual spring repairs to the dredging fleet were attended to early in April, 1913, and actual dredging started on May 26.

Departmental dredge *No. 207*, was employed with tug *Ruby* and two scows. The work consisted of the removal of a strip 25 feet wide from the east side of the dredged channel extending from the turning basin at Valeport to deep water in the lake. The channel is now 65 feet wide and 4,700 feet long and has a minimum depth of 6 feet at low water. Dredging of same was completed on September 28.

Number of cubic yards removed (scow measurement), 19,967.

Material: Clay—cost about 36 cents per cubic yard.

In March last, a survey of the area already dredged and of that proposed to be dredged this season was made, in order to ascertain the condition of the bottom in the turning basin and channel, and for the purpose of determining the expansion factor for the information of the dredging branch.

Expenditure, $6,503.19.

NORTH SASKATCHEWAN RIVER SURVEY.

Two stretches of river were surveyed prior to 1913; the first, 300 miles in length, extending from Prince Albert to Le Pas, was surveyed in 1911, and the second stretch, 241 miles, approximately from Edmonton to Lashburn Ferry, was completed in 1912. There remained a reach of 234 miles unsurveyed between Lashburn Ferry and Prince Albert at the beginning of the season 1913. Work was started on this reach early in May and carried on continuously throughout the summer, until August 15, on which date Prince Albert was reached and a connection made with the survey started from that city in 1911.

The survey of the river from Edmonton to Le Pas is now complete. The approximate distance between these two points is 775 miles.

After reorganizing the main survey party in Prince Albert, the latter part of August, the survey of the river from Le Pas to Lake Winnipeg was started. Thirty-one miles of river were triangulated, traversed, levelled, and sounded before winter set in, when the party returned to Le Pas and was disbanded. The office staff returned to Prince Albert and have since been engaged in platting last season's work.

Daily readings of water gauges were taken at the following main stations: Edmonton, Battleford, The Elbow (Ceepee), Prince Albert, and Le Pas, Man.

A connection was made at Prince Albert, Ceepee, and Battleford with precise levels of the Department of the Interior. These were found to check very satisfactorily with Saskatchewan river levels. It is expected to check again at Edmonton and Le Pas, when precise levels have been carried to these points.

An investigation of the Clearwater river and of the main branch of the Saskatchewan river was made in the foothills for flood control purposes. Three possible sites for dams and storage reservoirs were examined on the Clearwater river; two of these were abandoned on account of insufficient storage capacity; the third site, which has been selected, is about 55 miles from Rocky Mountain House and will afford a storage capacity of 138,000 acre-feet. An advantageous location was also found in a gap between two mountains on the Saskatchewan river at Kootenay Plains, about 75 miles up river from Rocky Mountain House. The storage possibility at this site is 239,000 acre-feet, approximately. The watershed of the Clearwater dam is estimated at 430 square miles and that of the Kootenay Plain site at 1,730 square miles.

It is proposed to continue these investigations this season. The streams to be examined are the Sheep, Siffleur, and Baptiste rivers, and both the South and Main branches of the Brazeau river.

The office staff at Prince Albert was engaged during the winter in the reduction and platting of last summer's notes. Plans are now well advanced, but will still require several months' work before they can be completed. This work will occupy the attention of the office staff during the summer.

PRINCE ALBERT.

Protection Works.

Approval of new design for these works was secured and work authorized to be proceeded with by day labour on April 18, 1913. Orders for piling, lumber, iron, tools, etc., were placed and work started with a small force of men. It was not until the latter half of June that a full force could be employed and driving started, the new steam pile driver not being ready for use. Driving was pushed without interruption to the end of the season when the driver-scow became unworkable by reason of low water about September 30; framing, capping, bracing and the placing of brush and rip-rap in the works was carried on as piling was being driven.

The total length of protection works completed during the fiscal year was some 750 feet. This section extends upstream from the west end of the present wharf towards the Canadian Northern railway bridge where works are to close on the south abutment of the bridge. The remaining section of about 1,500 feet will be built next year.

During the winter months, a force of men was engaged in gathering stone from bars in the near locality. A considerable portion of this stone was placed in the works, the balance has been piled up at convenient points on the shore for use next season. The amount of stone so stored is about 145 cords.

Total expenditure, $16,027.74.

ALBERTA.

ATHABASKA RIVER.

The Athaba-ska river rises in the Rocky mountains and flows, generally speaking, in a northeasterly direction across Northern Alberta emptying into Lake Athabaska. North of the town of Athabaska it serves as the only method of transporting supplies to the districts of Fort MacMurray, Great Slave lake, and the great Mackenzie River basin. At a distance of about 170 miles north of Athabaska a series of rapids commence, continuing at intervals almost to Fort MacMurray. The largest of these rapids, called the Grand rapids, has a drop of 40 feet in less than a mile. Large boulders have obstructed these rapids, thus rendering the passage of scows, carrying supplies northerly, very dangerous. Until recently it has been necessary to unload the scows at the head of the rapids, and to let them run over empty, portaging the supplies overland to the foot of the rapids. Considerable work has been done in the past at clearing out the Grand rapids. Work was started there during the fiscal year 1910-11, and continued during each succeeding year. Work during the year just closed was started on September 25 last, and the work accomplished at Grand rapids, has been improved as much as can be done in clearing out obstructions. This work would cover a distance in length of one-half a mile in removing by dynamite boulders from the channel.

Work was also done at Little Grand rapids, which lie immediately below the Grand. Boulders were blasted out of the tracking channel over a distance of 450 feet long and 10 feet wide. On the completion of this work, in the early part of February, the foreman took a part of his crew down to Brulé rapids, a distance of 15 miles below the Grand rapids, and blew out five large rocks which obstructed the scow channel. When this work was accomplished he continued to the Boiler rapids, a distance of about 30 miles north of the Grand, where he also blew out five large boulders.

Amount expended during the past fiscal year, $7,167.01.

EDMONTON.

Wharf.

This wharf is located immediately east of the Government low level bridge in the city of Edmonton. The wharf as built had a total length of 180 feet along the back and 121 feet along the front, with an extreme breadth of 60 feet. The design also called for two levels, the upper one being 11 feet 5 inches above the extreme low water mark, and the lower one being 7 feet 5 inches above the same datum. The original contract called for the construction of a wharf alone, but it did not, however, provide for any filling back of the wharf, which was required in order to give access to the wharfs for teams and pedestrians. This work was undertaken, by the department by day labour, last spring. In connection with this it was necessary to sheet pile the whole back of the wharf, which was done with 4-inch tamarac, 14,500 feet, b.m., of this material was used, and a good support was provided for the filling material. This filling was obtained by drag scraping the high bank immediately above the wharf and in grading the roadway. A 20-foot roadway, level with the wharf, was provided in this manner of filling material as well as grading the approach.

It was found after the ice ran out that a number of piles along the face of the wharf were badly damaged, and some carried away altogether. In order to prevent

a possible recurrence of this, it was considered advisable to face the whole exposed face of the upper wharf with 4-inch planking, so that ice and drift material would not find any lodgement. With this end in view the piling that was damaged or destroyed was replaced and new piling put in, one between each of the fender piles, in order to provide support for the planking. Twenty of these piles were put in, this work being started early last winter when the water was at its lowest. After this piling was done, and the surface of the wharf brought to a true plane, 4-inch sheeting was ship-spiked along the whole outer face of the wharf, a distance of 121 feet; this 4-inch sheeting was also continued along the angle face of the wharf, a distance of 85 feet, and to reinforce the upstream nose of the wharf this planking and piling was continued into the bank, a distance of about 25 feet.

It might be mentioned that soundings were taken at regular intervals during the last season along the wharf, and it was found that no erosion of the river bed in the vicinity of the structure had occurred. In fact, the tendency had been rather in the opposite direction.

There was expended during the fiscal year just closed, the sum of $2,396.64.

GROUARD.

Grouard is on the Lesser Slave lake at the west end of the lake. The object of this work is to create a channel from deep water in Lesser Slave lake to Grouard, which is located on the Buffalo river, connecting Buffalo bay with Lesser Slave lake. The proposed channel when completed will have a width of 50 feet on tangent and 60 feet curves, with a depth of 4·5 feet below low water. The nature of material removed consists principally of gumbo or dark sticky clay. The total quantity of material removed comprises 24,569 cubic yards, scow measurement. Of this total amount there was approximately 4,618 cubic yards excavated in sand and gravel, the balance being gumbo as stated above. This work has all been done by dredge *P.W.D. No. 206*. Actual work at digging was commenced on May 7, 1913, and stopped for the season on October 11, 1913. No tugs nor scows have been used in connection with this plant, the material being side cast as the dredge proceeded. Owing to the nature of same there has been very little filling up of the channel due to slides or settlement, except in certain localties where we cut through sand bars.

STURGEON RIVER.

Improvements carried out during the last fiscal year consisted in dragging weeds out of the channel in this river from the highway bridge crossing at St. Albert into the Big lake, and also a channel practically the whole length of the lower lake. A distance of approximately 4½ miles was covered in this district, making a channel sufficiently wide for boats to use. After this work was done, the boat used for this purpose was transported by rail to Lac Ste. Anne, which drains into the Sturgeon river. The work done here last year consisted of clearing out the growth of weeds and removing boulders where possible, as a large area of haylands adjoining this lake have been flooded for several years owing to unusually high water. It is claimed that this high water is caused by drainage into the Lac Ste. Anne and the adjoining lakes of certain creeks which were diverted in their courses by construction works of the Canadian Northern railway and the Grand Trunk Pacific companies. Work was started on this river on July 1 last, and stopped for the season on September 30.

As a method of operation in removing these weeds, we used the Government launch *Pioneer*, which had lain at Athabasca for several years in a state of disuse, bringing the same to St. Albert by rail, where it was overhauled. A weed cutting blade was fitted over the stern wheel and arranged so that it could be hoisted and dropped by two

sheaves. In operating, the blade was dropped and the boat forced ahead for several hundred feet. The blade was then raised by two men operating same, and the weeds cleared off by hand. This method was found to be quite satisfactory. The boat was left for the season at Lac Ste. Anne, where it is again proposed to start work during the present fiscal year, when the appropriation becomes available.

BRITISH COLUMBIA.

ALICE ARM.

On the Department's wharf at Alice arm, Observatory inlet, a freight shed 16 by 16 feet, shingled and painted according to standard, was built by day labour. This freight shed provides protection for any goods landed by prospectors and settlers, and it was completed under the day labour system for $520.

AINSWORTH.

Ainsworth is an important mining camp on the west side of Kootenay lake. The population of the camp is about 600, and heavy shipments of ore and concentrates are made to the Trail smelter.

The sum of $10,200 was voted in 1913-14, for the construction of a wharf, and on March 18, 1914, a contract was let to Messrs. J. Daney & Co., of Nelson, for the work.

It will be a reinforced concrete structure, built on a rock reef, and will be 32 feet by 236 feet long. The amount of the contract is $9,242. Work was actually begun in March, 1914, and is now in progress.

ARGENTA.

Argenta is a mining, farming, fruit-growing, and lumbering settlement, at the head of Kootenay lake. It is also the landing for the route over the Well's pass into the Windermere district, and for a portion of the district along the Lower Duncan river. The permanent population is about 100, and there is a considerable floating population.

Authority was granted, during the year 1913-14, for the construction of a wharf to cost $7,000. Work was begun on December 2, 1913, and completed on January 28, 1914.

The wharf consists of a float, 40 feet by 89 feet, held in place by pile dolphins, and the approach is a floating one, 16 feet wide by 288 feet long, held in place by a pile on each side of each section. The sections are 16 feet long and are held together by chains. There is a freight shed, 12 feet by 16 feet, on the wharf.

The total cost of the work was $5,659.02.

ARROW PARK.

Columbia River.

On April 11, 1913, the departmental dredge *Sheldrake* began operations in the river immediately above Arrow Park wharf for the purpose of removing the bar in the river which made landing at the wharf, in low water season, very difficult. She worked at this point till the rising water necessitated closing down for the high-water season on April 30. Work was resumed November 19, 1913, and completed January 8, 1914. The improvement has a total length of 610 feet and a width of 75 feet, with

a minimum depth of 8 feet at low water stage. The material moved, which amounted to 13,745 cubic yards, was composed almost entirely of clay and rock, and was overcast, 2,400 cubic yards of which were overcast a second time.

The total cost of the shore operations was $5,227.99.

BARNSTON ISLAND.

Barnston Island, New Westminster district, one of the larger islands on the Fraser river, is situated some 9 miles up river from the city of New Westminster, and is a point of call for the regular river steamers.

Authority being granted, the departmental pile-driving plant was used to construct a pile bent and timber-decking wharf at this point. The wharf consists of a pier head 60 feet by 60 feet, with an approach 225 feet by 14 feet.

Work was started on October 29 and completed on December 2, at a cost of $2,499.98.

BEATON.

Beaton is situated at the head of the north arm of the Upper Arrow lake, and is the landing point for the Lardeau Mining district, including the camps of Beaton, Camborne, Trout Lake, Ferguson, and others, to which points daily stages run.

Authority was granted, during the year 1913-14, for the construction of a wharf to cost $8,500. Work was begun on November 3, 1913, and completed January 20, 1914.

The structure is a floating wharf, 40 feet by 80 feet, with a floating approach 16 feet wide and 256 feet long, built in 16-foot sections and connected by chains. Owing to the impossibility of driving pile dolphins to hold the main float and approach in place, on account of the ground being solid rock, chains and heavy concrete anchors were used. A freight shed, 12 feet by 20 feet, was built on the wharf.

The total cost of the work was $7,713.69.

BELMONT WHARF.

The work consisted of the construction of a small wharf 40 by 50 feet with an approach of 18 by 136 feet including a landing slip at one side of the wharf. The work was commenced July 26, and was completed on the 31st of August, 1913.

Eighteen creosoted piles were used in the construction of this wharf to nullify the action of the teredo.

The amount authorized for the above work was $2,500, but it was found necessary to exceed the appropriation by $420.97, which has not yet been paid to the Contractor.

BOLD POINT.

Bold Point, Comox-Atlin district, is the centre of a farming and logging district on Lwoer Valdez island, some 100 miles northwest of the city of Vancouver. It is a regular point of call for steamers plying on the Straits of Georgia.

Authority being granted for the construction of a wharf at this point an agreement was entered into with James McDonald & Company to perform the work at unit prices of $23 per pile and $30 per M. for timber, both in place.

The completed work consists of a pile bent and stringer construction, approach 240 feet long and 14 feet wide with the necessary gangway leading to a float 42 feet by 58 feet. Work was started on October 27 and completed on December 6, at a total cost of $2,479.15.

BURTON CITY.

Columbia River Narrows.

On April 1, 1913, the departmental dredge *Sheldrake* was engaged in dredging the channel below Burton City, removing eroded material from Cariboo creek, which is deposited annually in the narrows. The cut was completed on April 11, 1913, and during this period, 3,955 cubic yards of material, mostly hard gravel, were removed at a cost of $923.67. The total length of cut, including previous work, is 2,215 feet, with a width of 75 feet and a minimum depth below low water of 9 feet. The total amount of material overcast was 25,444 cubic yards, at a cost of $3,839.30.

CAMPBELL RIVER.

The repairs to this wharf consisted of replacing 10 piles which had been knocked out of the approach, also new piles for 30 bents, and renewing planking on approach. This work was commenced July 28, and was completed October 31, 1913. Further repairs were found to be necessary consisting of driving 15 piles, trimming 14 piles, bolting and wiring 10 piles, tearing out 13 piles, and renewing planking, which was commenced February 9 and completed February 19.

Amount expended, $2,497.31.

CAMP ISLAND.

Camp island, Comox-Atlin district, is situated in the Straits of Georgia approximately 100 miles northwest of the city of Vancouver. It is a point of refuge from southwest storms, and a point of call for steamers plying among the islands of the straits.

Authority was given to carry out certain repairs, and build an addition to the Government wharf at Camp island. An agreement was entered into with James McDonald & Company to perform the work at unit prices of $23 per pile and $30 per M. for timber, both in place in the work.

General repairs were made to the approach and pier-head, and the outer 60-foot face of the latter was extended 20 feet out to deeper water.

Work was started on October 29 and completed on November 12, at a total cost of $1,983.82.

CANOE PASS.

Canoe pass, New Westminster district, is situated at the mouth of the Fraser river and separates the main land from Westham island. The pass provides a navigable passage to the main channel of the Fraser river for several canneries and the settlers along its banks.

The work carried out this year had for its object the protection of the south bank, at a point near the public wharf, from erosion.

The departmental plant was used to carry out this work, and some 600 lineal feet of the bank is now protected by mattressing, faced by rock. Twenty-four mattresses, each 40 feet long by 25 feet wide, were placed and weighted with 511 tons of quarried rock.

Work was started on August 9 and completed on October 18, during which time the plant was utilized for six days for driving line piles at the mouth of the river and in carrying out minor repairs to the wharf at Steveston. The total expenditure amounted to $4,259.97.

CAPILANO.

The Capiliano is a mountain stream having its source in the Howe Sound mountains, Vancouver district. It flows in a southwesterly direction and enters the first

narrows of Burrard inlet through thre distinct branches. Owing to the high elevation of its source and the precipitous nature of its course down the mountains, the freshets are sudden and destructive.

The object of the work is to control the freshets by confining and diverting the flood water into the west channel, as the east branch empties into the first narrows where the widening operations are being carried on by dredging.

Authority was granted to expend $2,700 by day labour. This work was put in hand on July 11, and consisted in the construction of a dam or barrage some 350 feet long across the east branch of the river. This work was completed on August 13, at a cost of $2,680.22.

A subsequent flood widened the channel around the end of the dam built, and occasioned other damage.

Work of repair was started in March, and is being continued to date; the work proposed and now under way consists of a submerged, loose rock, diversion dyke some 600 feet long along the easterly bank of the west branch of the creek, the extension of No. 1 dam across the cut made by the above mentioned freshet, and the deepening of the bed of the west branch of the creek, parallel to, and below, the rock dyke now being built.

CASCADE FLUME.

Cascade Flume, Comox-Atlin district, is a small settlement on the mainland coast of the Straits of Georgia, some 25 miles northwest of the city of Vancouver. Communication with the lower mainland is maintained by small steamers plying in coastwise trade.

Authority was granted to construct a small wharf at this point. Owing to the exposed position of the site it was considered advisable to substitute for the wharf a strongly built, free moving, float at which it would be safe for steamers to land.

The work was performed by day labour. The float, 26 feet by 50 feet, consists of a plank and cross-tie deck overlying large cedar logs, the whole anchored to a cast-cement block weighing 2½ tons. Work was started on October 1 and the float towed to position on January 20. The total expenditure was $1,313.78.

CEDAR CREEK.

Kootenay Lake.

Cedar creek, on the west side of Kootenay lake, one mile north of Ainsworth, is the tramway terminus and shipping point for a number of mines operated by the Consolidated Mining and Smelting Company, and the Silver Hoard Mining Company.

These companies have exteusive ore bunkers at Cedar creek, and owing to the fact that material slipped from the surrounding banks into the channel, dredging was necessary to enable barges to be berthed alongside the ore pockets.

On April 1, 1913, the departmental dredge *Bittern* was operating at this point and continued here until April 7, 1913, whence she was moved to Nelson. Work was resumed and continued during two other periods, September 17 to September 22, and October 30 to December 11, 1913.

Two cuts were made, 136 feet and 102 feet in length respectively, with a width of 49.5 feet, and an average depth of 5 feet at low water. The material moved, mostly rocks and clay, amounted to 8,306 cubic yards, 6,355 cubic yards of which were cast over.

The total cost of the above work amounted to $2,011.08.

CHASE.

Dredging.

From July 12 to 19, some necessary dredging was done between the departmental wharf and warehouse, 1,716 cubic yards of gravel being removed and overcast and

teams and scrapers employed to distribute the material. The cost of this work, including the teams, amounted to $240.24.

On the 11th November, the *Pelican* was moved from Little River to the public wharf at Chase, and work was started on a cut along the west side of the wharf to allow small craft to obtain shelter and tie up during low water season.

This work, which was completed on the 26th November, consisted of a cut 450 feet in length, 45 feet in width, with an average face of 4·5 feet, and necessitated the removal and overcasting, including double handling of 3,993 cubic yards of sand, which, at a cost of 12 cents per cubic yard, amounted to $407.16.

CHILLIWACK.

Of the specified amount of $3,500 for removal of snags and general improvement of Fraser river at Chilliwack, and included in the general appropriation for Fraser river improvements, $3,186.15 was expended.

The work consisted in the removal of snags and other obstructions to the river opposite the town of Chilliwack throughout the year and the strengthening and repairing of two wing dams.

CHURCHOUSE.

Churchouse, Comox-Atlin district, is a settlement on the mainland approximately 125 miles northwest of the city of Vancouver. It is a point of call for coastwise boats and numerous tugs engaged in the logging industry.

Authority was given to proceed with the construction of a landing float on a small bay fronting the settlement. The work was performed by day labour. It consists of a float 24 feet by 50 feet, a floating approach 6 feet wide and 336 feet long, and the necessary anchorage, etc.

Work was started on October 15 and completed on November 24 at a cost of $841.79.

CLAM BAY, THETIS ISLAND.

This work consisted of the construction of a new wharf 40 by 60 feet with an approach of 12 by 251 feet and a shed 12 by 20 feet. Work was commenced July 26, and was completed September 4, 1913.

Eighteen creosoted piles were used in the construction of this wharf to nullify the action of the teredo.

The amount expended was $3,000.

COLUMBIA RIVER.

The portion of the Columbia river lying between Windermere lake and the town of Golden, on the main line of the Canadian Pacific railway, a distance of 100 miles, is navigable for light draft steamers from April until November. The snag boat *Muskrat* is engaged on this part of the river doing work necessary to remove obstructions and to provide help for navigation.

Her work is of a varied nature and consists principally of keeping the banks clear of sweepers, removing snags from the channel, repairing old and building new wing-dams and removing bars with a Stanley scraper with which she is equipped.

She started work for the season of 1913 on April 1st, and worked until October 15th, when she was tied up at Athalmer for the winter.

Her season's work was as described above, and in addition, her crew drove the piling for the new wharfs at Inverness and Windermere, built new wharves at McMurdo and built slips to wharves at Athalmer and Walmer as reported on elsewhere.

The total cost of the season's operations exclusive of wharf work, was $6,173.36.

At the point where the Columbia river empties into the Upper Arrow lake, near Arrowhead, large shoals and sandbars have been formed and on these bars are lodged logs and roots of trees carried down by the river. Logs, etc., which pass this place float down the lake until caught in the shallow water at the upper end of the narrows or outlet and there lodge.

These snags form a danger to navigation and in accordance with instructions, they were removed during the fall of 1913. The work began on October 1st, and was prosecuted at intervals as weather permitted during the winter, until all obstructions were removed.

The dam built in 1907-08, to protect the city of Revelstoke from the encroachments of the Columbia river, required to be raised at the inner end, where unusual high water poured over it and caused serious trouble along the bank below. The expenditure of the sum of $1,000 was authorized for the raising of this dam. Work commenced on May 24 and completed on June 16, 1913.

Dredging.

The portion of the Columbia river which connects the Upper and Lower Arrow lakes is known as the Narrows, and is about 20 miles in length. During the past year 1913-14, the departmental dredges *Nakusp* and *Sheldrake* have both been employed during a portion of the season in dredging the various bars and shallows to provide year round navigation in the narrows.

COQUITLAM.

Coquitlam is the new western freight terminus of the Canadian Pacific railway. The present population of 1,200 should increase materially as development work is carried on. The Pitt river runs through the municipality to the Fraser river, and water transportation is via these rivers to the sea.

On January 21, authority was given to perform certain dredging in front of the Coquitlam Shipbuilding Company's plant. An agreement was entered into with the Pacific Dredging Company to dredge 11,000 cubic yards of clay and boulders at 23 cents per yard, place measurement.

Work was started by the dredge *Beaver No. 2* on January 23 and suspended on March 5, during which time 6,560 cubic yards of blue clay and hardpan were removed. Owing to the position of the work it was necessary to overcast some 4,032 cubic yards of the above amount, which was later removed and paid for at the rate of 15½ cents per yard.

The total cost of dredging was $2,127.04, exclusive of inspection.

CRAWFORD BAY.

Crawford Bay is a lumbering, farming and fruit-growing settlement at the head of Crawford bay, an arm of Kootenay lake. The holdings are mostly small ones of from 5 to 20 acres, and the population is about 200.

In 1913-14, a vote was passed and authority granted for the expenditure of $1,500 on improvements to the wharf. The work was begun on October 10 and completed on November 11, 1913.

The wharf is a rock-filled crib and the work done consisted in widening it from 20 feet to a width of 30 feet, and in lengthening it from 180 to 220 feet.

The total cost of the work was $1,441.75.

CROFTON.

This work consisted of the construction of a wharf 40 by 59 feet, with an approach 14 by 533 feet, a freight shed 14 by 24 feet, and float 30 by 14 feet. Eighteen creosoted

piles used in the construction were delivered on the site on August 1, 1913, but construction was not commenced until November 24, and was completed December 31, 1913.

Amount expended was $3,517.20.

Early in March, it was found that the float had been damaged and some repairs were necessary. These repairs were commenced on March 16 and completed on March 20, 1914.

The amount expended was $342, making a total expenditure of $3,859.20.

DEASE RIVER.

Dease river, Comox-Atlin county, rises immediately over the height of land dividing the Pacific water shed from that of the Arctic Ocean in Northern British Columbia. It flows generally northeast and empties into Liard river. This stream is used by a large number of traders and trappers for transporting supplies into the wilderness of the north. Obstacles to navigation in the shape of snags and fallen trees had rendered navigation very difficult and dangerous in this stream. No attempt was made to clear the whole river, but a great deal of the difficulty was removed during the season, the work being done by day labour. This greatly improved navigation, although a larger sum should be provided to complete the work in order to render the stream absolutely safe. The sum expended on the work was $2,277.65.

DE COURCEY ISLAND.

This work consisted of dredging a small channel about 75 feet long, 12 feet wide and 4 feet deep at low water to allow the passage of launches and small boats at all stages of the tide, which necessitated the removal of about 250 cubic yards of rock. The work was commenced on September 11th and was completed October 14th, 1913.

Owing to a considerable increase in traffic in the neighbourhood, it will be necessary to expend a further sum of money on deepening and widening the channel.

The amount expended was $614.50.

DEEP COVE.

The work of construction of a wharf was commenced on July 14th, 1913, and was completed August 8th.

The wharf is 55 by 38 feet, with an approach 12 by 304 feet and a small float and gangway was attached for the use of boats to land. A freight shed 12 by 28 feet was also constructed to accommodate material being stored temporarily on the wharf.

In this wharf, 24 creosoted piles were built in at regular intervals so that in the event of the teredos having a detrimental effect on the remainder of the piles the wharf will be self supported.

The amount expended on same was $2,183.43.

EAST ARROW PARK.

East Arrow Park is a farming and fruit growing settlement on the east side of the Columbia River narrows, between Upper and Lower Arrow lakes, and has a population of about 125.

Authority was granted, in the year 1913-14, for the construction of a wharf to cost $6,500. Work was begun on January 1, 1914, and was completed on February 28, 1914.

The structure is a floating wharf, 40 by 80 feet, held in position by pile dolphins. The approach is also floating, and is 16 feet wide by 208 feet long, held in place by a

pile on each side of each section. The sections are 16 feet long and are held together with chains. A freight shed, 12 feet by 16 feet, is on the wharf.

The total cost of the work was $5,419.72.

FRASER RIVER.

The following works on the Fraser river, New Westminster district, were paid for out of the general appropriation for the lower Fraser improvements:—

The departmental pile driving plant was used to build 600 lineal feet of protection work for the river bank opposite the town of Ladner. The work consists of a single row of piles driven 5 feet centre to centre, backed by brush and rock, and was performed between June 4 and August 8. Cost, $4,341.23.

Between August 8 and October 18, sundry small repair jobs and some piles were driven at different points on the lower river. This work was done at intervals during the progress of the work done at Canoe pass by the same crew, the latter work being performed under a separate appropriation. Cost, $414.25.

From October 21 to December 10, the plant was engaged in carrying on repairs and strengthening Nos. 1 and 2 wing dams, Woodward's slough, by adding brush and rock to the existing structures. Cost, $3,933.

On December 11, the plant was moved up the river to Annieville bar, two miles below New Westminster. With the exception of eight days spent in driving line piles for various dredge cuts (cost $1,015), the pile driver and crew were engaged at this point to the 31st of March in repairing and strengthening the outer ends of wing dams Nos. 1, 2 and 3. These wing dams on the Fraser serve to contract the river, and thus deepen the water in the ship channel. This work cost $5,653.

Training Piers.

A contract was let to the Sinclair Construction Company in 1911 to build the first unit, 6,900 feet, of the Fraser river training pier, running in a westerly direction from Steveston across the sandheads.

This firm had completed some 55 per cent of the contract when they assigned to the Westminster Trust Company in March, 1913, and made necessary the calling of tenders for the completion of their contract.

On August 2, an Order in Council was passed awarding this contract to Broley & Martin, of New Westminster, at unit prices aggregating $83,500.

Work was started by this firm on August 27 and continued, with one interruption due to unfavourable weather, to the end of the fiscal year. Some work remains to be done, but this should be completed by the end of April. The completed unit consists of 3,100 lineal feet of single bulk-heading and 3,800 lineal feet of double bulk-heading, with brush mattressing and the necessary over-dressing and filling of quarried rock.

Wharves.

This appropriation is for the construction of new wharves and repairs to existing wharves on the lower sixty miles of the Fraser river. During the year the departmental pile driving plant was used to repair the following wharves, at the costs opposite:—

Langley wharf	$141 19
Chilliwack wharf	223 15
Sumas wharf	47 25
Total repairs	$411 25

Removal of Snags.

Early in the year, it was decided necessary to build a new boat for this service, using the machinery and equipment of the old *Samson*. As the work of snagging, etc., could not be discontinued, an agreement was entered into with the Royal City Navigation Company for the use of the steamer *Paystreak* at a rental of $1,200 per month. This boat was put on the work on January 12, and was still in service on March 31. Three hundred and thirty-six snags were removed from the river during the year.

During the year, 24½ days' work was done by the snag boat placing buoys marking the channel over the sandheads for which service $1,592.50 was charged to the Department of Marine and Fisheries, being at the rate of $65 per day.

Sandheads.

The work done on the sandheads consisted in assisting the natural tendency of the river to cut a new and straight channel through an extensive bar which had formed across the mouth of the river. This new channel is approximately parallel to the jetty being built across the sandheads and is superior, from a navigable standpoint, to the old channel which is being abandoned.

Earlier in the year, some dredging was done on the old channel to keep it open until the channel had been made navigable.

Owing to the position and nature of the work at the sandheads and the constant scouring and filling action of the river waters, storms and tides, it is impossible to define the exact bounds of the dredged areas, except that portion of the work being performed by contract and hereafter described.

During the year, a total of 1,065,032 cubic yards of sand and clay were removed by the three dredges operating.

The following tables showing the performance of the departmental sea-going, scraper-dredge *Fruhling,* and the departmental suction dredge *King Edward,* serve to show the work done at this point by each.

Dredge 'Fruhling'.

Interval during which work was performed.	Cubic Yards Hopper M'ment.	Material.	Location.
April 1st—April 10th	31,200	Sand	Old channel.
April 14th—May 4th			(Repairs.)
May 5th—August 23rd	279,200	Silt and sand	Old channel.
August 25th—September 20th			(Installing oil burners.)
September 22nd—January 15th	467,000	Mud and clay	New channel.
January 16th—February 14th			(Repairs.)
February 16th—March 31st	147,600	Mud and clay	New channel.
Total (Cubic Yards)	925,000		

On September 22 the *Fruhling* started to work on day and night shifts.

Dredge 'King Edward'.

Interval during which work was performed	Cubic Yards Place M'ment.	Material.	Location.
August 25th—October 16th	72,560	Sand.	New channel.
November 7th—November 21st	11,565	"	"
February 9th—March 6th	44,390	"	"
March 23rd—March 31st	10,495	"	"
Total (Cubic Yards)	139,010		

The intervals not noted in the table were periods during which the dredge was under repairs or performing work elsewhere.

King Edward operates with day shift only.

On February 26, a contract was awarded to the Navigation Dredging Company of Vancouver, B.C. to remove some 300,000 cubic yards of sand from the bed of the new channel constituting a cut 8,000 feet long and 200 feet wide; dredging to be carried to 15 feet below L. W. S. T. This material to be paid for at the rate of 23½ cents per cubic yard, scow measurement.

The dipper dredge *P. D. C. No. 4* was started on the work on January 3, but owing to its exposed position and the unfavourable winter weather, operations were discontinued almost immediately and not started again until March 26. The total number of yards removed to the 31st of March was 1,022, and the total cost, including inspection was $188.27.

This work is also designed to assist the natural tendency of the river to deepen the new channel over the sandheads. Much of this scouring action of the river has, and is, taking place, the original length of cut, 8,000 feet, has already been reduced to 3,750 feet from this cause.

The total cost of dredging operations at the Sandheads was $81,358.10.

GABRIOLA ISLAND.

This work consisted of the construction of an approach 10 by 315 feet and a float 30 by 20 feet at the outer end to be used principally for small launches. The work was commenced on October 1, 1913, and was completed October 16.

The amount expended was $1,996.05.

GOOSE BAY.

At Goose bay, Observatory inlet, it was found necessary to construct a freight shed to protect goods landed on the Department's wharf. The building is 16 by 16 feet, shingled and painted according to standard and provides protection to a large amount of freight landed here. The work was built by day labour for the total expenditure of $458.52.

GORGE HARBOUR.

Gorge harbour, Comox-Atlin district, is a small sheltered arm of the sea on the southerly coast of Cortes island, some 110 miles northwest of the city of Vancouver. Extensive settlement of the land in this vicinity made necessary the provision of some landing for the regular steamers plying along the coast and for the small boats of the settlers.

A small float 40 feet by 45 feet with the necessary storehouse and anchorage was built, by day labour, at a cost of $1,059.07.

Work was started on November 3 and completed on December 4.

GOWER POINT.

Gower point, Comox-Atlin district, marks the westerly entrance to Howe sound from the Straits of Georgia. A small settlement of farmers has sprung up in the immediate vicinity, and daily steamers from Vancouver make this point a place of call.

On October 1, work was started on the construction of a small float to serve as a landing for passengers and freight. Actual construction was completed on October 28, but it was considered advisable to delay the towing of it into position until a more favourable time of the year. This has not yet been done.

The work, consisting of a float 34 feet by 60 feet with a floating approach 316 feet long and 6 feet wide, was performed by day labour at a cost of $1,837.09.

GRAHAM'S LANDING.

Columbia River.

At Graham's Landing, where the steamboats cross from the deep water channel, on the west bank, to the deep water channel along the east bank, there was no regularly defined channel. On March 25th, 1914, the departmental dredge *Sheldrake* began operations to open a clearly defined channel at this point, and was still working on March 31st. During this time, a channel 450 feet long by 75 feet wide, with a minimum depth of 9 feet at low water, was excavated. The material moved was chiefly sand, and amounted to 4,000 cubic yards, at a cost of $503.82.

GRANTHAMS LANDING.

Granthams, Comox-Atlin district, is one of the most important summer and all-the-year resorts of the Howe Sound district. It is situated on the west shore of the Howe sound, some 25 miles from the city of Vancouver. Two steamship lines run daily between this point and the city, and considerable traffic passes over the wharf.

Authority was granted to construct a wharf at Granthams, and an agreement was entered into with James McDonald & Company to perform the work at unit prices of $23 per pile and $30 per M. for timber, both in place.

Work was started on August 27th and completed on September 12th. The wharf is of pile bent and stringer construction, and consists of a pierhead 40 feet by 60 feet, with an approach 285 feet long and 14 feet wide. A float, 14 feet by 34 feet, with the necessary gangway, etc., was built alongside the wharf to afford a landing at all stages of the tide for the numerous motor boats of the vicinity.

This work cost $4,276.75.

GREY CREEK.

Grey Creek is a farming and fruit growing settlement on Crawford bay, an arm of Kootenay lake. It is being rapidly settled up, but at present has a population of only about 100.

Authority was granted, during the year 1913-14, for the construction of a wharf, to cost $5,500; and work was begun on February 20th, and completed on March 11th, 1914.

The wharf is a floating structure 39 feet by 80 feet, held in place by pile dolphins. The approach is a floating one, 16 feet wide by 165 feet long, held in place by a pile on each side of each section. The sections are each 16 feet long, and are connected by chains. There is a freight shed, 12 feet by 16 feet, on the wharf.

The total cost of the work was $5,462.57.

HALLETTS.

Halletts (now known as Longbeach) is a farming and fruit-growing settlement on the north side of the west arm of Kootenay lake, and has a population of about 100. This is one of the oldest settlements in the district and a considerable amount of farm produce and fruit is shipped out.

Authority was granted, during the year 1913-14, for the construction of a wharf to cost $6,500. Work was begun on January 29 and completed on February 19, 1914. The wharf is a floating structure, 40 feet by 80 feet, held in place by pile dolphins. The approach is a floating one, 16 feet wide and 224 long, held in place by a pile on each side of each section. The sections are 16 feet in length. There is a freight shed, 12 feet by 16 feet, on the wharf.

The total cost of the work was $5,551.18.

HATZIC.

Hatzic is a village on the Fraser river, some 34 miles above New Westminster, and on the main line of the Canadian Pacific railway. Quantities of small fruits, vegetables and general farm produce are shipped out to New Westminster and other river points.

At the beginning of the fiscal year, the departmental dredge *King Edward* was engaged in dredging an approach to the Government wharf, and from April 1 to April 8 removed 27,525 out of a total of 49,175 cubic yards of silt and sand, which the freshets on the Fraser had deposited. The completed cut has a length of 750 feet, an average width of 150 feet, and was dredged to 8 feet below low water level.

Quantities were determined by surveys made before and after the work. The cost of this work, based on the performance of the dredge throughout the year, was $3,118.58.

HOLBERG.

This work consisted of the construction of a wharf 40 by 60 feet, and an approach 14 by 2,282 feet, and the construction of a small float 20 by 57 feet, gangway to the float 30 by 4 feet, and shed 16 by 14 feet.

The above work was commenced on March 8, 1913, and was completed on July 31.

The amount expended was $11,252.35.

HOLLYBURN.

Hollyburn, Vancouver district, is the local name of a portion of the municipality of West Vancouver, situated on the north shore of Burrard inlet. A ferry is maintained between the Government wharf at that point and Vancouver city.

Authority was granted to expend $2,000 in repairing the existing wharf and to provide suitable landing for small boats. This work was put in hand on August 18.

The outer portion of the wharf was removed and the remainder of the wharf repaired and strengthened with new timbers and creosoted piles. A landing stage 15 feet by 24 feet with a gangway leading to a float 53 feet long and 25 feet wide was built, and the latter is to be fixed in position with the necessary piles. Work was completed on September 20. Some dredging alongside the float remains to be done.

HOWE SOUND.

Authority was given to proceed by day labor with improvement work on the Squamish river, some four miles above the town of Squamish, formerly called Newport, Comox-Atlin district.

This work consisted in the general improvement of the river from this point towards the mouth. Work was started on December 27 and completed March 20,

during which time 317 snags were blasted and removed from the river bed. Driftwood and other obstructions were removed or floated down stream to the mouth of the river.

The total expenditure was $3,266.06.

INVERMERE.

Invermere is a village situated on Windermere lake, at the head of the Columbia river, 100 miles by water from Golden.

It is the centre of a population of about 400, and is the headquarters of a large farming and fruit raising district. An extensive irrigation system has been constructed on the lands in the vicinity, and at the village have been established a Dominion experimental agricultural farm and a provincial demonstration orchard.

Windermere lake is nine miles in length and the Columbia river, from the foot of the lake to Golden, on the main line of the C.P.Ry., about 90 miles in length, is at present the main artery of traffic for the whole valley.

During the last fiscal year, authority was granted for the construction of a wharf at this place, to cost $2,000.

A small private wharf, built by the owners of the adjoining land, was taken over by the Department, in order to obtain the most suitable site, and the new wharf was built as an addition to this. The completed wharf is a pile structure with timber deck, 32 feet by 60 feet; 8 foot slip in centre, and a freight shed 12 feet by 16 feet.

The piling was driven by the crew of the departmental snagboat *Muskrat*. Work was begun on September 10 and completed on October 31, 1913.

The total cost of the work was $2,003.88.

KASLO.

The city of Kaslo is the centre of one of the most important silver-lead mining districts in British Columbia. It has a population of about 600, and is the distributing centre and headquarters for a number of mining camps of the Slocan district. Communication with the mines was formerly maintained by the Kaslo and Slocan Railway Company, a subsidiary company of the Great Northern railway, which operated narrow gauge trains to Sandon. A few years ago, a large amount of damage was done to the road and on account of the depression of the mining industry at that time, operations were suspended. This condition continued until 1912, when a syndicate composed of local business and mining men purchased the road and rolling stock with the intention of resuming operations, as proper transportation was all that was required to put mining in the district on a prosperous basis.

Shortly after the purchase of the road by the syndicate, negotiations were entered into with the Government of British Columbia and the Canadian Pacific Railway Company, with the result that the Government granted a bonus to the railway company which took over the road and standardized it, putting it in proper condition to carry the traffic. This work is now completed, with the exception of a few miles of ballasting. The former lake terminus of the road was at a small timber and rock crib wharf at Kaslo, which was in a very bad state of repair and totally unsuited for the business to be done over it.

Authority was granted, in 1913-14, for the construction of a pile and timber wharf to cost $18,000, and a contract was let to Wm. English, of Kaslo, for the work on December 26, 1913, for the sum of $13,500. Work was started on February 1, 1914.

The wharf will be a pile timber and trestle, 798 feet long and 32 feet wide, on a grade of 3·5 per cent, and will be paralleled by a track of the C.P.Ry. to enable trains to go alongside wharf.

The work is still in progress.

Dredging.

On September 23, 1913, the departmental dredge *Bittern* began operations and completed work on October 9, 1913. A portion of the crib, 180 feet by 15 feet, was removed. The material, amounting to 2,000 yards was cast over into deep water.

Ths total expenditure at this point was $984.83.

KOOTENAY BAY.

Kootenay Bay is a small fruit-growing settlement on the east side of Kootenay lake. The present population is very small, but as there is a large amount of excellent land tributary to the settlement, a rapid increase in population and land under cultivation is to be lookd for.

Authority was granted, during the year 1913-14, for the construction of a wharf to cost $7,500, but it was not considered advisable to expend this full amount.

Work was begun on March 12 and completed on March 20, 1914.

The wharf is a float, 30 feet by 40 feet, with an approach apron 12 feet by 20 feet. It is connected to the shore by two §-inch wire cables on winches, for moving it up and down the beach as the water rises or falls.

The total cost of the work was $2,333.31.

KOOTENAY LANDING.

Kootenay Lake.

Kootenay Landing, situated at the south end of Kootenay lake, is the western terminus of the Crow's nest branch of the Canadian Pacific railway. Daily steamers ply between this port, Nelson and other lake points. It is the transfer point for all through freight and passengers over the Crow's nest brauch. On account of wharves and transfer slips being immediately at the mouth of the Kootenay river, a large amount of silt is deposited in the channel annually, and dredging is necessary to keep navigation open.

On October 10, 1913, the departmental dredge *Bittern* began operations and was employed till October 29, 1913, whence she was removed to Cedar creek. Work was resumed at Kootenay Landing on December 17, 1913, and continued till March 31, 1914. During this period, ten cuts were made, of a total length of 1,830 feet each, giving a channel 40 feet wide, with a minimum depth of 12 feet at low water.

No 1 cut at the "Swing Dolphin," radius 200 feet; Nos. 2, 3 and 4, in the river, off the transfer slip, total length 660 feet; Nos. 5, 6 and 7, in the mouth of the channel, opposite the "Light Dolphin," total lengths 750 feet; No. 9 inshore, near the wharf, length 50 feet; No. 10, in the channel, off transfer slip, length 90 feet.

In all 24,435 cubic yards of material were moved, mostly sand and silt, at a cost of 33·56 per cubic yard.

The total cost of this work was $8,979.70.

LADNER.

Ladner is a town of 1,000 inhabitants on the south bauk of the Fraser river, 13 miles below New Westminster. A new ferry service recently inaugurated to Woodward's slough made necessary some dredging in the Ladner ferry slip. Advantage was taken of the time the departmental dredge *King Edward* could not work on the sandheads, owing to storms, to perform this work.

Eight thousand one hundred cubic yards of silt were removed from a cut 180 feet long and 20 feet wide; the cut provides 10 feet at L.W.S.T.

The work was performed on the 8th, 9th, 10th and 11th of October, and cost $917.73.

LASQUETTI ISLAND.

Lasquetti island, Comox-Atlin district, is situated in the Straits of Georgia, about 90 miles northwest of the city of Vancouver. A public wharf affords a means for the settlers to ship cattle and hay to different markets on the coast.

Some slight repair work, consisting of a replanking of the inclined slip, was carried out at a cost of $21.85.

LILLOOET RIVER.

Authority having been granted and $6,000 appropriated for improving the South Lillooet river, New Westminster district, an agreement was entered into with J. W. Pike & Company of New Westminster to provide a dredge and perform the necessary work at a rate of $5 per working hour.

Work was commenced on October 24 and finished on March 28. The completed work, consisting of a dredged cut along the bed of the river some 5,700 feet long and 40 feet wide, provides a depth of 4 feet at low water level of the river. In addition to this, a shoal at the junction of the south and north branches of the river was dredged through to carry off the flood water of the latter stream.

The total cost of the work, including inspection, was $4,142.18.

LITTLE RIVER.

Dredging.

On the 30th September, work was commenced opening a cut below the Indian village on the right bank of the Little river, and immediately above its discharge into Little Shuswap lake. This work, which consisted of a cut 900 feet in length, 90 feet in width, with an average face of 3 feet, was required to obtain a depth of 5 feet at low water stage. It was completed on the 10th November, and involved the removal and overcasting, including double handling, of 10,191 cubic yards of gravel, which, at 13 cents per cubic yard, amounted to $1,286·48.

On the 4th December, dredging was commenced at the head of a cut which was completed in February. This cut is 2,400 feet in length, 80 feet in width, and the face throughout the whole length averaged 3 feet, the place measurement being 21,136 cubic yards, the material gravel, and cost, at 13 cents per cubic yard, $2,747.68.

The quantity of dump removed during March was 9,998 cubic yards, which, at 6½ cents per cubic yard, amounted to $649.87.

On April 1, 1913, the dredge *Pelican* commenced work at a cut which had been commenced during the past season, on the Little River, near Squilax.

This work was continuous from the 1st of April until the 10th May. Cuts, aggregating 990 feet in length, 70 feet in width and having an average face of 3 feet, were dredged, and 7,504 cubic yards of gravel removed and overcast, involving the actual handling of 15,000 yards, of material, the cost of which, at 13 cents per cubic yard, amounted to $1,950.

LOCKPORT.

Lockport, Moresby island, Queen Charlotte islands, is the landing place for a prospecting mining district and is situated on the east coast of Moresby island. A pile bent wharf 40 by 60 feet was constructed here. It has a pile approach 145 feet long and was completed under contract by Mr. W. G. Gillett of Vancouver for the sum of $3,947.75. This wharf will serve a large number of prospectors and settlers who are going into this part of the district.

MCMURDO.

McMurdo is at the river landing for the McMurdo district of the Columbia valley, 17 miles south of Golden. The district is a farming and stock-raising one, with a population of about 300.

Authority was granted, during the year 1913-14, for the construction of a wharf to cost $750. The work was begun on September 23 and completed on November 28, 1913, and was done by the crew of the department snagboat *Muskrat.* It is a pile and timber structure, 24 feet long by 18 feet, with a slip 6 feet by 24 feet.

The total cost of the work was $611.43.

METCHOSIN.

This wharf was damaged by storms, and immediate repairs were found to be necessary. The work consisted of general repairs to shed and approach, and replacing 15 piles. Work was commenced and completed in January, 1914.

Amount expended was $560.

MINNEKAHDA.

Minnekahda, New Westminster district, is situated on the bank of the Pitt river, eight miles above its junction with the Fraser, and fourteen miles above New Westminster. It is the centre of a good farming community, hay and other produce being shipped to different points on the lower mainland.

Authority being granted, a small wharf 60 feet by 60 feet with a 14-foot approach 175 feet long was built by day labour.

Work was started on August 25 and completed on October 4, at a cost of $2,567.19.

MISSION.

Mission is a town on the Fraser river, 31 miles north of New Westminster and on the main line of the Canadian Pacific railway. The town is the centre of a prosperous farming community, and considerable fruit and farm produce is shipped to various river points. A ferry operates from the Mission side of the river to Riverside wharf on the opposite shore.

Authority was given on October 8 to dredge alongside the Government wharf at Riverside. The departmental dredge *King Edward,* on the 4th, 5th and 6th of November, dredged 4,790 cubic yards of sand and silt from a cut 500 feet long, 45 feet wide and having a depth of 8 feet at L.W.S.T.

Total cost of dredging, based on cost of dredging operations for *King Edward* throughout the year, was $542.71.

NADOO RIVER.

Nadoo River, Massett inlet, Graham island, Queen Charlotte islands, is a small settlement where a great many settlers receive supplies and ship produce, a landing float 30 by 40 feet was therefore constructed to accommodate the number of small boats which land there.

The work was done under agreement with Mr. W. G. Gillett, of Vancouver, for the sum of $1,000. This float serves a large number of settlers in the interior.

NEEDLES.

Needles is a farming and fruit-growing settlement on the west side of the lower Arrow lake, and is also the landing for the Whatshau valley. The population of the district is about 200.

Authority was granted, during the year 1913-14, for the construction of a wharf to cost $7,500, and steps were taken to secure the necessary land to form the approach

to the wharf, but owing to difficulty in securing title to this land, the construction of the wharf has been temporarily delayed. The necessary material is all on the ground and the work will be proceeded with as soon as title is secured.

NELSON.

Dredging.

Nelson is a city of approximately 7,000 population, situated on the west arm of the Kootenay lake. There are 250 launches and motor boats on the lake, about 175 of which are moored in Nelson harbour. The departmental dredge *Bittern* began operations on April 28, and continued till rising water forced her to close down on June 9, 1913. Work was resumed on July 26 and discontinued September 16, 1913. During this period, a channel 750 feet long, with a width of from 40 to 70 feet, and a minimum depth at low water of 5 feet, was dredged at the foot of Josephine street. A channel 500 feet long, by from 50 feet to 100 feet wide, with a minimum depth of 5 feet at low water, was dredged from the foot of Ward street to the foot of Josephine street. The material excavated was principally gravel and clay, and amounted to 21,735 cubic yards, handled by dump scow, at a cost of $2,831.29.

Wharf—Dredging.

On April 8, 1914, the departmental dredge *Bittern* began operations at Nelson city wharf with the object of improving the berthing accommodations during the low water period. Work was continued till April 24, 1913, during which time two cuts were made, one on the east and the other on the west side of the wharf. The combined length of these cuts is 460 feet, with a width of 60 feet and a minimum depth of 8 feet at low water. The material moved, principally sand and silt, was cast over into a chute, leading under the wharf, and amounted to 2,518 cubic yards.

The total cost of this work was $878.67.

NELSON ROAD.

Nelson Road, New Westminster district, is situated on Lulu island, some five miles south of New Westminster, and serves as an outlet to the Fraser for a community of farmers in the district. Authority being given, the departmental plant started the construction of a small wharf on December 16 and completed the work on January 17. The wharf consists of a pierhead 50 feet by 60 feet and an approach 60 feet by 14 feet with the necessary shed and slip. Cost, $1,788.57.

NEW MASSETT.

The Department having built a wharf at New Massett, Graham island, Queen Charlotte islands, and omitted a freight shed, it was found that, owing to the rapid increase in traffic, a freight shed was necessary, and a building 24 by 24 feet was built. This was done under an agreement with Mr. W. G. Gillett, of Vancouver, who completed the work for the amount of the estimate or $700. This shed was shingled and painted in accordance with the standard adopted.

NEW WESTMINSTER.

On May 20, the departmental dredge *King Edward* was ordered to New Westminster to perform some urgent work in connection with the laying of the city water pipe line to Lulu island. A trench across the bottom of the north arm of the Fraser river was dredged to receive it, and actual work was started on the 21st of

May and completed on the 26th. The location of the work and material encountered proved difficult for the dredge, but the work was satisfactorily carried out, 2,565 cubic yards of various materials being removed.

The cost to the department for this work was $290.61, being at the rate of 11·33 cents per yard.

This dredging was done for the city of New Westminster, who were to pay for the dredge at the rate of $150 per day. The account, which amounts to $1,125, was rendered in the city, but has not been paid.

NICOMEKL RIVER.

The Nicomekl is a small, meandering river having its source in the municipality of Langley, New Westminster district, and runs in a southwesterly direction through the municipality of Surrey to Boundary bay near the international boundary. Its chief importance lies in the fact that it drains a very fertile area of farm lands and the control of its flood waters is an important matter.

Authority being granted to expend $1,200 on the improvement of the river, a force of men was put on the work and some sixteen log jams were removed from the bed of the river and the debris was disposed in piles on the banks.

Work was started on August 19 and completed on October 4, at a cost of $1,018.41.

NICOMEN.

Some 40 miles northeast of the city of New Westminster the Fraser river, flowing through a low lying portion of the valley, has formed a number of diversions, the most important, with subsidiary channels, being known as Nicomen slough, New Westminster district. These waters flow through very rich farming lands, which are to a considerable extent protected by dykes.

The important work being carried on from time to time has for its object the protecting of these lands and dykes during high water periods of the Fraser waters. Six dams have been built by the department in former years to divert the flood waters into desired channels.

During the year, an expenditure of $1,155.92 was made in repairing dams Nos. 2, 3 and 4; the cost of each of these works being $322.60, $156.82 and $676.50 respectively.

NOOTKA ISLAND.

Tenders have been called for and the contract awarded to Mr. R. H. Wood, of Port Alberni, at $4,500. Work will not, however, be commenced until after the present fiscal year.

OKANAGAN RIVER.

Okanagan river, of length about six miles, connects Upper and Lower Okanagan lakes. The object of the protection work has been to prevent the erosion of banks and to confine the channel within such bounds as would facilitate navigation.

The *Heron,* employed on this service, is a combination dredge, derrick, scow, and pile-driving outfit, being used as necessity arises for each of these purposes.

Work commenced on the 9th April to complete the breakwater at Lower Okanagan lake which was started in the last season.

This structure consists of two rows of piles driven at 8 feet centres, having 8 by 10-inch uprights bolted to the main piles, to which are spiked two rows of 6 by 8-inch stringers to form a backing for the 3 by 12-inch sheeting. Outer piles are driven at 8-foot centres and bolted through to the main piles. This work, costing $3,384, was completed on July 15.

From July 16 to August 2, bank protection work, consisting of piles driven along the face of the river bank at 8-foot centres and back-filled with brushwood and earth, was performed at two locations on the river. The cost of this work amounted to $832, making a total of $4,216 expended on this service.

Dredging.

The object of the dredging has been to deepen the channel and to distribute the grade uniformly over the entire length of the river, in an endeavour to enable small power boats to pass between the Upper and Lower Okanagan lakes.

In addition to actual dredging the *Heron* has been employed in clearing the banks of overhanging trees, removing snags, from the channel, and in bank protection work, the result being that there is now a power boat making daily trips between the Okanagan lakes, the water being at a low stage.

From 11th to 14th April the *Heron* was employed in dredging, and from 15th to 18th hauling back dredged material with a Stanley scraper.

Survey.

Work was commenced on March 23 on the Okanagan river by Mr. W. F. Richardson, B.C.L.S., with a small party. The river was traversed throughout its entire length and a careful investigation was made at the proposed lock-site above Beaver creek.

Cross-sections were made in several places throughout the course, where "cut-offs" might be made. The high and low water discharges were investigated and recorded, and the fall of the river was determined. A detail survey and cross-section were made at the Kettle Valley Railway Company's bridge, and the elevations of various points on the north shore of Lower Okanagan lake were determined.

Surveys were made at the various points along Okanagan lake, where there are existing wharfs, to determine what effect the alteration to the level of the lake would have upon these structures.

This work was completed on July 26, and a report in regard to this work was submitted under date of January 23, 1914.

OKANAGAN MISSION.

This work was commenced on the 5th December.

The extension consists of a pile-bent structure 16 feet by 160 feet on the south side of a wharf built previously by the Provincial Government of British Columbia. A shelter shed 16 by 20 feet was also erected. Work was completed on January 19, 1914, at a cost of $2,073.12.

PENDER HARBOUR.

Pender harbour, New Westminster district, is a small inlet on the mainland coast, forming a natural harbour on which two settlements have sprung up, one on either side of the harbour.

Authority was granted to construct a wharf in the harbour costing $4,000. It was decided, however, that the requirements of the district would be more adequately met by building suitable floats, one at each of the settlements. The construction of the two floats was proceeded with on September 13 by day labour and was completed on September 30 at a total cost of $3,968.52.

The Francis island float consists of a timber deck float 50 feet by 60 feet with a floating approach 130 feet long and 8 feet wide.

The mainland float, 50 feet by 60 feet, is connected with the shore by a pile bent and stringer approach 178 feet long and 10 feet wide.

Suitable buildings and necessary anchorage is provided for each float.

PENTICTON.

Dredging.

The work required at this wharf consisted of a cut 350 feet in length and 70 feet in width, with a face averaging 2½ feet vertical, required to give a depth of 8 feet at low water. The amount of material moved by overcasting, and including double handling, was 2,760 cubic yards, principally sand, and the cost including team hire to spread the dump, amounted to $1,269.60.

PITT RIVER.

The dredging being performed at the junction of the Pitt and Fraser rivers has for its object the providing of a navigable channel 300 feet wide and 25 feet deep through a bar which has formed at that point. The total length of cut, when completed, will be 6,000 feet, being from grade to grade at each end.

On August 2, an Order in Council was passed awarding to the Pacific Dredging Company of Vancouver, B.C., a contract to remove 879,000 cubic yards, place measurement, of class "B" material at 18 cents per cubic yard.

Work was started on November 11 and is being continued to date. To March 31, one-half, or 3,000 feet of the cut had been completed to grade, 25 feet below L. .S.T.; 477,590 cubic yards of sand being removed and pumped to an adjacent island. The hydraulic dredge *Robson* is doing the work.

Total cost of dredging for the fiscal year was $86,551.20.

POINT COWAN.

Point Cowan, or Cowan's Cove, Comox-Atlin district, is a small sheltered bight on the southwesterly point of Bowen island, in the Howe Sound.

A community of settlers and summer residents has made necessary a boat service between this point and Vancouver city, some 12 miles away.

Authority was given to construct a wharf, and an agreement was entered into with James McDonald & Company to construct a pile bent and stringer wharf at unit prices of $23 per pile and $30 per M. for timber, both in place. Thirty-four teredo-proof piles were incorporated in the work.

Construction was started on July 23 and completed on August 19 at a cost of $3,986. The wharf consists of a pier-head 60 feet by 40 feet with pile bent approach 297 feet long and 12 feet wide. A small-boat landing 20 feet by 40 feet with gangway and necessary fastenings and two storehouses were also built.

PORT ESSINGTON.

In order to accommodate a large number of small gasoline boats calling at Port Essington, Skeena river, it was necessary to build a landing float 30 by 40 feet. The estimated cost was $1,000, and an agreement was entered into with Mr. W. G. Gillett, of Vancouver, whereby the structure was completed for the amount of the estimate.

PORT HANEY.

Haney, New Westminster district, is a small town situated on the main line of the Canadian Pacific railway and on the Fraser river, some 18 miles up river from the city of New Westminster. It is in a farming community, and small fruits and general produce are shipped to different points on the lower mainland.

Repairs and additions to the Government wharf were carried out by day labour, and the departmental pile driver, at a cost of $1,425.60. Minor repairs were made,

and the addition, consisting of an inclined slip 170 feet and 14 feet wide, was constructed.

Work was performed between October 4th and 28th.

PRINCE RUPERT.

A ship having come into collision with the Quarantino wharf at Prince Rupert and injuring it, it was found necessary to repair the approach. At first it was considered that several long creosoted piles were broken and the cost of repairs were estimated at $1,800. This was afterwards found to be wrong as the piles were intact and the work was in consequence completed under the day labour system for the sum of $759.84.

QUATSINO.

The work consisted of replacing 54 piles, using about 2,000 feet of lumber, and the construction of a small shed 12 by 24 feet. Work was commenced June 10 and was completed September 25, 1913.

The amount expended was $2,327.90.

QUEENSTON.

Queenston, Massett inlet, Graham island, Queen Charlotte islands, is a landing point for supplies for a large number of prospectors, lumbermen and settlers in the interior of Graham island. There was no accommodation for landing supplies and the Department therefore built a 40 by 60 foot pile wharf with an approach 650 feet long. This work was done by contract with Mr. W. G. Gillett of Vancouver.

The total cost of the structure is $5,140.30. This wharf is provided with a freight shed 16 by 16 feet properly painted and shingled.

REFUGE BAY.

At Refuge Bay, a freight shed 16 by 16 feet, with shingled roof and painted according to standard, was built on the Department's wharf. It was urgently needed in connection with the receipt of supplies for the numerous settlers around this place, as the steamers usually land in the night and goods cannot be taken away immediately. This wharf was also provided with a complete system of sway bracing to steady it as the weather is often very rough at this point. The work was completed by day labour for $706.42.

RENATA.

Renata is a farming, fruit-growing, and lumbering settlement on the west side of the Lower Arrow lake, and has a population of about 150.

Authority was granted, during the year 1913-14, for the construction of a wharf to cost $7,500. Work was commenced on February 2, 1914, and completed on March 28, 1914. The wharf is a float, 40 feet by 80 feet, held in position by pile dolphins. The approach is also floating and is 16 feet wide by 132 feet long, held in position by one pile on each side of each section. The sections are each 16 feet long and are connected to each other by chains. On the wharf is a freight shed, 12 feet by 16 feet.

The total cost of the work was $5,631.47.

RETREAT COVE, GALIANO ISLAND.

The work consisted of the construction of a wharf 40 by 60 feet, with an approach 16 by 77 feet, and shed 12 by 20 feet. The work was commenced June 24, and was completed July 12, 1913.

The amount expended was $1,432.97.

RIONDEL.

Kootenay Lake.

At Riondel, situated on Kootenay lake, opposite Ainsworth, is located the Bluebell mine. This property is equipped with a concentrator and ships about twelve carloads of concentrates per week. These concentrates are handled in bulk on the barge, and to facilitate the mooring at the low water stage, it was necessary to deepen the channel next the crib wharf. On December 12, the departmental dredge *Bittern* began work and continued operations till December 16, 1913. During this time, a pocket 55 feet by 20 feet, and a hump at the entrance of the channel approximately 15 by 15 feet, was dredged to a minimum depth of 6 feet below low water. The material moved, principally gravel and rock, was cast over into deep water and amounted to 350 cubic yards.

The cost of the work was $197.84.

ROBERTS BAY.

The work consisted of the construction of a landing float 21 by 30 feet with an approach 6 by 1,000 feet and a small shed on the landing 10 by 15 feet. The work was commenced on September 3, 1913, and was completed October 14.

This work with such a landing approach is the neatest and most satisfactory of all works constructed in this district this year.

The amount expended was $1,981.25.

Repairs.

This wharf was slightly damaged by storms necessitating immediate attention. These repairs were commenced on January 1 and completed on January 2, 1914.

Amount expended, $48.

ROCK ISLAND.

Columbia River.

The channel of the Columbia river at Rock island forms a difficult piece of navigation owing to the contour of the river bottom at this point. The islands consist of loose rock and boulders, surrounded by numerous bars forming shallow points in the channel. To improve conditions, the departmental dredge *Sheldrake* began operations on October 27, 1913, and continued work till November 18, 1913, and was then moved to Arrow Park. Work was resumed at Rock Island February 16 and concluded on February 19, 1914. During these periods, two cuts were made of a total length of 340 feet, with a width of 75 feet and a minimum depth of 7 feet at low water. The material moved, which amounted to 6,020 cubic yards, consisted almost entirely of rocks and clay.

The total cost of the above work was $2,938.95.

ROCKY POINT.

This work consisted of the construction of a wharf 40 by 60 feet with an approach 16 by 170 feet and a freight shed 10 by 16 feet. The work was commenced on July 29, and was completed September 3, 1913.

Eighteen creosoted piles were used in the construction of this wharf to nullify the action of the teredo.

The amount expended was $2,569.97.

ROY'S BEACH.

This work consists of the construction of a wharf 100 by 40 feet with an approach 1,284 by 16 feet and a freight shed 14 by 20 feet. Work was commenced February 20 and is still proceeding. Up till and including March 31, 1914, about 680 feet of approach had been completed, and a further 210 feet capped and braced and piles driven. Vote available was $6,000, and net amount of estimate to end of fiscal year was $3,237.77.

RUSKIN.

Ruskin, New Westminster district, is a settlement on the Fraser at the mouth of the Stave river. Considerable farm produce is shipped to different points on the river by the settlers. A small wharf, consisting of a pierhead 40 feet by 50 feet, a slip 87 feet by 12 feet and an approach 60 feet by 14 feet, was built by the departmental pile driving plant at a cost of $2,499.98. Work was started on February 16 and completed on March 31.

SALMON ARM.

Work on an extension was commenced on October 23 and completed on November 8.

The extension consists of an incline 112 feet long and 16 feet wide, commencing at the northeast corner of the existing wharf and extending on a uniform grade of 1 in 11·2 to a point two feet above average low water mark, so that a landing can be made at any stage of water.

The cost of this extension, including the remodelling of the existing shelter shed, amounted to $1,296.39 and $300 was expended on redecking the wharf approach to the existing wharf at Salmon Arm with 3 by 12 inch planking.

Dredging.

On the 19th of July, the *Pelican* was moved to Salmon Arm. On the 21st, the work of deepening the channel leading from deep water to the public wharf was commenced. This work, which was completed on the 15th September, consisted of a cut 1,950 feet long, 45 feet wide with an average face of 4 feet, required to obtain a depth of 5 feet at low water, involving the removal and overcasting of 13,256 yards of clay, and cost, at 10½ cents per cubic yard, $1,391.88.

SANDSPIT POINT.

It was found that owing to the irregularity of the steamers it was necessary to construct on the department's wharf at Sandspit point, Moresby island, Queen Charlotte islands, a freight shed 16 by 16 feet. This shed was built, shingled and painted under an agreement with Mr. W. G. Gillett of Vancouver. The cost of this work was $587.37.

SAVARY ISLAND.

Savary Island, Comox-Atlin district, situated on the Malaspina straits some 100 miles northwest of the city of Vancouver, is becoming a summer resort of some importance, many cottages and a summer hotel constituting the present community.

Authority was granted to expend $180 on repairs to the superstructure of the government wharf. These repairs were carried out by day labour. Owing to the fact that the teredos are very active in this locality and had eaten through many of the bearing piles, it was found necessary to replace these and a further amount was asked for this purpose; authority was granted to expend $1,200 in general repairs to the

wharf, and an agreement was made with James McDonald & Company to perform the work at a unit price of $23 per pile. Fifty-three new piles were driven, most of them being Australian hardwood.

The total expenditure for the year, on this work, was $1,388.91.

SCOTCH CREEK FLATS.

Work was commenced on September 13, on the wharf which is 110 feet long and consists of: (1) an approach platform, 70 feet long and 16 feet wide on a level grade 2 feet above average high water level; (2) wharf head 60 feet long by 32 feet wide on the same level and at right angles to the approach platform, provision being made along the outside length of wharf for an incline 56 feet long and 8 feet wide, running on a slope of 1 in 6 from platform level, in order that a landing could be made at all stages of water. A shelter shed 20 feet by 12 feet has also been built on the wharf head.

This wharf was completed on the 31st October, at a cost of $2,730.05.

SEYMOUR ARM.

Contract plan and specifications for this wharf were forwarded on August 21, 1912, and was advised by letter of November 25, 1912, that the contract had been awarded to Messrs. Gillis, Doré & Tansley, contractors, of Seymour Arm, for the sum of $5,850.

Work on this wharf was commenced on May 17, 1913. On the 2nd August work was suspended owing to high water stage, which retarded progress. On the 6th October work was again resumed and the structure completed on the 22nd October.

The wharf is a pile bent structure 355 feet long and consists of: (1) an approach platform 322 feet long and 16 feet wide; (2) the wharf head, the general dimensions of which are 34 feet by 40 feet and having incline slips on the north and south sides, with grades of 1 in 6, and 8 and 12 feet wide, respectively, running from the wharf head level to 2 feet above average low water.

SHELTER POINT, GILLIES BAY.

Shelter Point, Comox-Atlin district, is a terminus of a Provincial Government road running across Texada island and through a fertile section of country, which is fast becoming settled. Texada island is situated on the Straits of Georgia some 80 miles northwest of the city of Vancouver.

On November 21 an Order in Council was passed awarding a contract to Messrs. Hodgson & King, of Vancouver, to construct a wharf at Shelter Point for the sum of $5,350.

Work was commenced on February 19 and completed on March 14, and consisted in the building of a pile bent and stringer wharf. A pier head 70 feet by 40 feet is connected with the end of the public road by an approach 505 feet long and 14 feet wide. Teredo-proof, creosoted, piles were used throughout the pierhead and the approach into low water mark on the shore.

SHOAL BAY.

Shoal bay, Comox-Atlin district, on the northern extremity of Thurlow island, is the receiving and distributing point for a considerable area of country consisting mainly of timber limits and mining properties. It is a regular port of call for coast-wise steamers and supply tugs.

Authority being granted for the construction of a wharf, an agreement was entered into with James McDonald & Company to perform the work at unit prices of $23 per pile and $30 per M. for timber, both in place.

The completed wharf is of pile bent and stringer construction, and consists of a pierhead 40 feet by 60 feet and an approach 480 feet long and 12 feet wide, with the usual building and slip. Thirty Australian hardwood piles were distributed under the bearing caps.

Work was started on October 8 and completed on October 21 at a cost of $4,457.50.

SOOKE HARBOUR.

This work consisted of redriving piles in wharf and approach and replacing new decking on wharf, bracing the pile, in approach and the construction of a shed 16 by 26 feet, and a small float 19 by 27 feet, and a gangway from float to wharf. Eighteen creosoted piles were used in the construction of this wharf to nullify the action of the teredo.

The work was commenced on October 1, 1913, and was completed on November 1.

The amount expended was $2,466.14.

SORRENTO.

The object of this work, towards which the sum of $3,200 was allotted, was to provide shelter during storms for small boats landing at Sorrento wharf.

Work on this structure was commenced on November 17, and the work consists of sheeting the east face of the existing wharf for a distance of 168 feet inward from the outer end with 4-inch sheeting, which is bolted through three lines of 6 by 8-inch waling and through the existing fender and bent wharf piles with 1-inch bolts, 34 inches long. Bracing is provided by 1-inch iron rods, 20 feet long, at every second bent, and by 6 by 8-inch bracing pieces from the main piling of the wharf to the centre bent pile. The structure is further strengthened with a footing of loose rock along both faces of the sheeting.

In addition to the above, a sheet pile breakwater, 140 feet long, was built to the south and parallel with the wharf approach, to afford shelter to small boats at anchor between it and the wharf.

This work was completed on the 20th December, and cost $2,321.17.

SOUTH GABRIOLA ISLAND.

The above work consisted of the construction of a float 40 by 25 feet, with a float approach 6 by 86 feet, with a small shed 8 by 12 feet, built upon the float. The work was commenced on September 22, and was completed on September 29, 1913.

The amount expended was $498.50.

SPILLER RIVER.

Spiller river, Porcher island, is the centre of a rapidly settling district adjacent to Prince Rupert and about 35 miles therefrom. During the last fiscal year, a wharf was completed at this point and it was found that owing to the irregularity of steamer calls it was necessary to have a freight shed on the structure. A building 16 by 16 feet, with a shingled roof, was built by day labour on this wharf; the shed was painted and put in good condition for receiving any freight landed. The expenditure was $491.18.

SQUAMISH.

Squamish, Vancouver district, is a new town, of some importance as a terminus of the Pacific-Great Eastern railway, situated at the head of Howe sound. A daily boat to Vancouver handles considerable freight and passenger traffic to and from that city.

On August 8, an Order in Council was passed accepting the offer of the provincial government to transfer the existing wharf at Squamish to the federal government.

On July 23, authority was granted to replank the wharf approach, and the work was proceeded with by day labour.

Work was commenced on July 24 and completed on October 27, and consisted in the replanking, with 3-inch plank, of an approach 2,510 feet long and 16 feet wide, together with some bracing of the pile bents and the replacing of rotted stringers.

Owing to unforeseen causes, the pierhead of the wharf was undermined later in the year and collapsed. Replacement being urgent and authority being granted, an agreement was entered into with James McDonald & Compnay to build a new pierhead at a cost of $4,940.

The new work consists of pierhead 80 feet by 50 feet and a connecting approach thereto some 170 feet long and 16 feet wide. Creosoted bearing and brace piles were used throughout.

After the completion of this work, a further expenditure of $35.80 was made to alter the inclined slip of the wharf so live stock could be satisfactorily landed.

Work was commenced on February 21 and completed on March 20.

Dredging.

On April 18, authority was given to do certain dredging at the government wharf, and an agreement was made with the Pacific Dredging Company to do the work for a lump sum of $1,100, and 2,200 cubic yards of sand and silt, along one face and end of the wharf, were removed by the hydraulic dredge *Robson* on May 29 and 30. The dredged cut, along the wharf, was 100 feet long, 50 feet wide and had a depth of 12 feet at L.W.S.T. Some material was also removed from in front of the wharf end to provide a uniform depth of 12 feet.

STEVESTON.

Steveston, a town at the mouth of the Fraser river, has a population of 1,000, and is the chief centre of the salmon fishing and canniug industry of British Columbia.

On March 28, authority was given to do certain dredging in a channel of the Fraser which fronts on ten or more canneries at Steveston, and which is used by numerous fishing craft and shipping steamers.

The departmental dredge *King Edward* was started on this work on April 17, and completed the cut on August 23. During this period, a total of 18 days were spent by the dredge in doing other urgent dredging and laying up for repairs.

The completed cut is 5,100 feet long, 150 wide and has a depth of 10 feet at L.W. S.T. A total of 239,435 cubic yards, place measurement, of sand, silt and mud were removed.

The cost of this work was $27,127.98; the cost per yard 11.33 cents.

STEWART.

Stewart is at the head of Portland canal. The old portion of the wharf belonging to the Department having become dangerous through the action of teredos it was necessary to repile that portion of it. This work was undertaken by day labour and carried to a successful finish. Cost of the work was $1,646.75.

STUART RIVER.

On the 18th September, a start was made for Tacla lake, at which point we arrived on the 2nd of October at about 10 a.m. After lunch, the return trip to Fort George commenced, and we arrived there on the 24th.

An examination was made of the Stuart, Ttachi, and Middle rivers, which, with Stuart and Trembleur lakes, are the connecting links between the Grand Trunk Pacific railway, at the mouth of the Stuart where it discharges into the Nechaco and Tacla lake. Surveys were made of several canyons and rapids, and other information obtained.

From the 25th October to the 1st November, the time was occupied with business in connection with the different works and in making surveys at Fort George and Hudson's Bay Gardens rapids. The former are of possible wharf sites, made in anticipation of an application for a wharf, at an early date, and the latter for use in connection with improvement work outlined for next season.

On the 2nd November, a start was made for Quesnel, arriving at Fort George canyon at noon, the afternoon and following day being employed in making an examination of the canyon, inspecting the work under progress and in connecting same with original survey.

Continued on way to Quesnel on 4th November, and arrived there on the evening of the 5th.

SUMMERLAND.

Dredging.

This work consisted of a cut averaging about 350 feet in length and 105 feet in width, with an average face of 3 feet vertical, involving the removal of, including double handling, 4,812 cubic yards, of material composed of stiff clay, boulders, and broken rock, and cost $1,876.68.

Owing to continuous high winds and numerous interruptions from tug boats requiring the fairway to make landings, the progress made on this work was slow, but it was eventually finished on the 4th December.

SYDNEY.

The work consisted of temporary repairs to wharf including the driving of piles in approach on wharf proper, bracing piles in the approach and renewing floor boards. The wharf was in a very dangerous state in June and immediate repairs were necessary. These were commenced on June 1 and completed June 20. The final repairs were commenced on October 14 and completed October 22.

Eighteen creosoted piles were used in the repairs to this wharf, to nullify the action of the teredo. Owing to the action of the teredo which is very severe on this coast, it will be necessary to carry out repairs of a similar nature to this work within the next few years.

The amount expended, including cost of all repairs, was $1,604.60.

SYDNEY ISLAND.

Early in December, this wharf was reported to be damaged by recent storms and immediate repairs were found to be necessary. These were commenced on January 3 and completed January 19, 1914.

Amount expended was $475.89.

TAPPEN.

Dredging.

On authority received September 13, the dredge *Pelican was moved* to Tappen on the 16th September, and work was started opening a channel at Mobley's landing.

This work consisted of a cut 300 feet long and 45 feet wide with an average face

of 3 feet, giving a depth of 6 feet at low water stage. The cut was completed on the 24th September and involved the removal and overcasting, including double handling, of 1,755 cubic yards of stiff clay, and at 14 cents per cubic yard cost $245.70.

THETIS ISLAND.

Dredging.

This work consisted of the dredging of a channel between Thetis and Kuper islands 1,440 feet long. The contract for this work was placed with the Vancouver Island Construction and Development Company, Victoria, at a rate of 90 cents per cubic yard, place measurement, for an authorized quantity of 3,700 cubic yards. Work commenced on September 4, and was completed on October 7, 1913. The total amount of material excavated, consisting of rock, hardpan, clay, mud and boulders, was 3,758 cubic yards.

Generally, the work carried on has given great satisfaction to the people resident in the vicinity, and the benefits derived therefrom are considerable.

THOMPSON RIVER.

During the months of December and January last, the steamer *Crombie,* owned by the Adams River Lumber Company, was engaged in moving half-sunken trees and logs at the head and mouth of the Little river, for which the company was paid $240.

On the 1st March, a party was engaged in removing rocks and other obstructions from the boat channel, South Thompson river, between Shuswap and Pritchard. This work was completed on the 31st March, and cost $796.47, making, with the amount paid for the removal of snags, a total expenditure of $1,036.47 on this service.

TOFINO.

The work on this wharf consisted of lengthening the existing wharf by an addition of 69 by 30 feet on the north end, and making general repairs. Work was commenced November 1 and was completed December 15, 1913.

Amount expended, $2,997.55.

TWO BEACON BAR.

Columbia River.

On April 1, 1913, the departmental dredge *Nakusp* was operating at Two Beacon bar, about one mile above Burton City, and continued there till rising water necessitated the discontinuance of operations on May 14, 1913. During this period, 14,850 cubic yards of material were moved, 11,303 cubic yards of which were overcast and 3,547 cubic yards, new cut, at a cost of $1,459.45. The cut, including previous work from October 22, 1912, till March 31, 1913, is 2,864 feet long, with a width of 75 feet and a depth at low water of 8 feet. The total material moved by dredge *Nakusp* was 68,837 cubic yards, principally clay with a light deposit of fine silt on top.

Total cost of the above work for the years 1912-13 and 1913-14 was $8,001.62.

On January 9, 1914, the departmental dredge *Sheldrake* began operations on Two Beacon bar, at the upper end, about one mile and a half above Burton City, and continued till February 14, when she completed the new channel. The channel excavated is 1,470 feet long, with a width of 75 feet and a minimum depth at low water of 9 feet. The material moved was principally sand and amounted to 22,050 cubic yards, at a cost of $1,511.76.

The work of the two dredges on this bar gives a crossing from the upper channel on the west side of the river to the lower channel which lies along the east bank.

UCLUELET.

This work consisted of the construction of a wharf 40 by 80 feet with an approach 18 by 360 feet, float 20 by 20 feet and a freight shed 18 by 24 feet. Work was commenced October 1, 1913, and was completed January 13, 1914.

Amount expended was $4,497.42.

UNION BAY.

On July 19, the SS. *Leona* ran into this wharf and caused a certain amount of damage. Repairing this damage was carried out by the Department, and the cost of same was made good by the owners of the steamship. In addition to these repairs, the wharf was extended in length and width making the present wharf 140 by 70 feet in place of 40 by 80 feet as formerly. There were also some additional repairs consisting of driving new piles, replacing boards, etc. The work was commenced August 1 and completed September 4, 1913.

Amount authorized for extension of wharf was $2,500 and for repairs to wharf $1,000, and the total amounts were expended.

UPPER FRASER RIVER.

Giscombe Rapids.

These rapids start about 32 miles above Fort George and are about six miles in length. They appear to have been caused by a heavy lodgement of large boulders, through which there is a fast current without any defined channel. During the season of 1912, Messrs. Foley, Welsh & Stewart, contractors on the Grand Trunk Pacific railway, spent a considerable sum of money in opening up a channel through these rapids by blasting out the larger boulders so that their steamboats, engaged in handling their supplies, could pass through them with a fair degree of safety. On examination of these rapids, on a trip down the Fraser river in September, it was found that a fair channel has been opened except for a distance of about a mile at the lower end. To complete this work, instructions were given to get the necessary supplies and outfit on the ground. About the 1st October, a force of seven men commenced work which continued until the 16th November.

There is an unexpended balance of $888.13 of the $5,000 allotted for this service; there is now a fair channel throughout the entire length of these rapids.

Fort George Canyon.

Authority to expend $10,000 was given on 16th September and 13th November on this work. Actual work began on the 1st of October and continued on into December. The work, consisting of removing projecting points of rocks on the right bank, near the upper end of the channel, was well under way on the 3rd of November, a force of seventeen men being employed.

For several years past, money has been expended on improving this channel without there being, so far as could be seen, any definite object in view, other than the removal of isolated rocks with a view of opening several channels to be used, one or another, at varying stages of water. The intention is, in future, to confine all expenditure to opening a channel along the east bank and instructions were given to that effect.

The only information received in regard to the work done at Fort George, since the 3rd of November last is that the work in the canyon is completed in good shape.

Hudson's Bay Gardens Rapids.

It was reported that by diverting the water from the banks towards the main channel with wing dams, the necessary improvement to these rapids would be accom-

plished, but after a very careful examination and survey of these rapids, it was decided that before wing dams could be effective, it would be necessary to remove a number of large boulders, which obstruct the channel, by blasting them and the smaller ones with a grappling plant. Subsequent to this, an examination was made of the river from these rapids to Quesnel, a distance of about 110 miles, and it became so evident that to do any effective work towards opening a channel between Fort George and Quesnel, to obtain uniform conditions throughout the whole distance, a dredge of not less capacity than 600 cubic yards per diem and with sufficient power to handle heavy material was necessary, and that to expend money on a smaller plant was not advisable. If it is not deemed necessary to provide this dredge, it is recommended that the idea of any further improvement work on the Upper Fraser river be abandoned.

CANOE WHARF.

Contract plans and specifications for a wharf were forwarded on the 23rd June, and was advised on October 8 that the contract had been awarded to Mr. Andrew McConnell of Chase, B.C., for the sum of $5,450.

Work on this wharf was commenced on the 23rd March.

The wharf, when completed, will be a pile bent structure 16 feet wide throughout and having a total length of 462 feet, the outer 350 feet of which is on a 3 per cent grade. A shelter shed 12 feet by 20 feet is provided for in the specifications.

Construction was well under way on March 31, about two weeks being required to complete the work.

GLENEDEN.

Contract plans and specifications for this wharf were forwarded on the 7th July, but the contract was not awarded at the end of the fiscal year.

PRITCHARD.

Contract plans and specifications for this wharf were forwarded on the 17th July, but the contract was not awarded at the end of the fiscal year.

SUMMERLAND.

Contract plans and specifications for this wharf were forwarded on the 28th July, and was advised on 28th November that the contract had been awarded to Mr. Andrew McConnell of Chase, B.C., for the sum of approximately $12,365.

Work on this wharf was commenced on 12th January.

The wharf is a pile-bent structure, 700 feet long and 40 feet wide throughout, commencing at a point on Beach avenue at an elevation of 5·4 feet above average high water level and running on a uniform grade of 0·8 (eight-tenths) per cent to a point 2 feet above low water level; beginning at a point 140 feet from the inside of structure and extending for 112 feet along the northerly face wharf, an incline slip 8 feet wide on a 5 per cent grade is provided for the convenience of launches.

The work also includes a shelter shed 16 feet by 20 feet.

This wharf was completed on 18th May.

UPPER LILLOOET RIVER.

The work on the Upper Lillooet river consisted of the removal of obstructions in the form of log jams and clearing the bank generally of sweepers and brush.

Work closed down on January 5, 1914, $2,638.54 having been expended.

VAN ANDA.

Van Anda, Comox-Atlin district, is a mining town of some 300 inhabitants, on Texada island, 80 miles northwest of the city of Vancouver. The town is a supply centre for an extensive farming district, and a regular point of call for steamers.

The Provincial Government wharf was taken over by the Federal Government, and an appropriation of $1,000 made to carry out urgent repairs.

The work was performed by day labour. Eighty-three bearing piles and posts were put in under the wharf and 10,213 feet, b.m., of timber was used for sway bracing and decking.

Work was started on August 25 and completed on September 19, at a total cost of $1,018.87.

Some planking was removed late in March, which had been broken by heavy teaming over the wharf.

VANCOUVER.

Vancouver city, situated on the western coast of the Dominion, has a population of 110,000. The harbour consists of a large body of sheltered seaway, known in its different parts as English bay, Burrard inlet, and False creek.

Being a western terminus of several railways extensive shipping is carried on with the Orient.

Early in the year tenders were called for the construction of a timber-crib and concrete wharf to be built on a site procured by the Government on Burrard Inlet, at the foot of Salisbury drive, Vancouver city.

On August 25, an Order in Council was passed awarding the contract to Messrs. Henry, McFee & McDonald, of Vancouver, at unit prices aggregating $1,249,030.75.

Work was commenced October 1 and is being continued to date, there being two years from date of contract in which to complete the work.

Dredging on the site of the work and other work preliminary to actual construction of the cribs was performed to the end of the fiscal year.

Dredging.

The entrance to Burrard inlet, or Vancouver harbour, from the sea, is through a contracted channel known as the First narrows. This channel is of varying width, the least being opposite Prospect point, where the width was originally 450 feet between 30 foot contour lines. The work being prosecuted at the present time has for its object the widening of the navigable channel to 1,200 feet and deepening it to 35 feet at L.W.S.T. This work is being performed by the departmental ladder dredge *Mastodon,* working day and night shifts.

The following table gives the dates between which the dredge was actually digging and the quantities of materials removed, the intervals being periods during which the dredge was laid up for repairs or performing work elsewhere.

The total area dredged over during the year was some 786,000 square feet, and the total cost, based on the year's performance of the dredge, was $160,820.87, being 787,180 cubic yards at 20.43 cents per yard.

DREDGE "MASTODON".

Intervals during which Work was Performed.	Scow Measurement.	Materials.	Location.
	Cu. Yds.		
April 23—May 15	76,600	Coarse gravel	First Narrows.
June 23—July 18	104,220	"	"
August 26—January 17	452,520	"	"
January 28—February 7	13,780	"	"
February 23—March 23	138,060	"	"
Total	787,180		

Some slight cleaning up was done on Parthia shoal over the area already dredged to 30 feet L.W.S.T.

False Creek.

The work being done in False creek has for its object the utilizing, as an additional harbour, of a long, narrow and shallow basin of water running from English bay to the centre of the city. This work necessitates the deepening of a channel some 13,600 feet long to 20 feet at L.W.S.T. from grade in English bay to a point at or near the Great Northern railway bridge crossing False creek; together with a dredged cut some 2,400 feet long and average width of 188 feet, the latter running northerly from the inner end of the main channel and having a depth of 12 feet below L.W.S.T.

On March 3, 1913, a contract was awarded to the Pacific Dredging Company of Vancouver, B.C. to remove 3,300,000 cubic yards of various materials at a flat rate of 21 cents per cubic yard, place measurement.

Dredging was started on May 13 and continned throughout the year. Three dredges, i.e., suction dredges *No. 1* and *Robson,* and the dipper dredge *Puget Sound* are being used on the work, the latter two not continuously.

On December 22nd, the Pacific Dredging Company were authorized to remove a further quantity of 542,000 cubic yards of materials to afford a turning basin at the inner end of the cut first authorized, this material being paid for at the same rate of 21 cents per cubic yard.

During the year, a total of 970,183 cubic yards of materials, place measurement, were dredged, the work being prosecuted from the easterly or inner end. The inner cut 2,400 feet long, noted above, was dredged to grade, 12 feet. The turning basin some 1,450 feet long and some 500 feet wide was nearly completed at the end of the fiscal year, and shows 20 feet at L.W.S.T. Other portions of the main channel, outwards to the Connaught bridge, have been dredged to various depths all above the ultimate 20-foot grade line.

The total cost of dredging in False creek during the year was $213,240.26.

Burrard Inlet.

On September 2, authority was granted to do some light dredging in the Johnson Wharf Company's slip on Burrard inlet. An agreement was entered into with the Navigation Dredging Company to perform the work on a basis of 40 cents per cubic yard, place measurement. The Company's dredge *P.D.C. No. 4* dredged 540 cubic yards of silt on the 14th and 15th of September at a total cost of $216.

VICTORIA.

Old Custom House Wharf.

This work consisted of replacing and driving piles and repairing decking of wharf. Creosoted piles were used altogether in this work. The work was commenced on September 20, and was completed September 30, 1913.

The amount expended was $481.96.

Breakwater.

The contract for the above work was signed December 20, 1912, but it was not until about the 9th of April that any rock was dumped on the site of the breakwater, owing to the delay of erecting the plant, building wharfs at the Albert Head quarry and the building of scows.

Good progress was made after May as will be seen from the monthly returns as follows:—

	Tons.
April, May	4,556
June	10,732
July	13,754
August	22,223
September	30,855
October	32,758
November	24,956
December	32,459
January	26,596
February	36,893
March	42,121
Total	277,903

(2) For a distance of about 1,700 feet from the shore outwards the rubble mound is practically completed up to the 20-foot level. Work on the granite blocks commenced on March 12, 424 tons having been placed in position up till March 31, 1914.

(3) In regard to the extra for levelling land to grade for the wharfs, this work was commenced in May and since that time good progress has been made, the excavated material being used for reclaiming the water frontage.

The total amount excavated to the end of March, 1914, is 49,405 cubic yards which was mostly solid rock.

The net amount of contractor's estimates for year was $318,569.86, and the accounts certified for inspectors' salaries and general expenses amounted to $3,962.02, making a total expenditure for 1913-14 of $322,431.88.

Dredging.

The fleet operating in Victoria harbour during the full year consisted of the following: Dredge *Ajax,* dredge *Mudlark,* Lobnitz rock breaker *No. 1,* and rock drilling plant *No. 1.* During the latter portion of the fiscal year, the following were added to the permanent fleet: Rock dredge *Victoria,* of the orange peel class, rock drilling plant *No. 2,* and diving staff.

In addition to the above, the rock dredge *Skookum* was rented by the department from September 18 to December 6, 1913. The dredge *Mastodon* was also engaged on the dredging required at the outer wharves which was started on May 19 and completed June 21, 1913.

It was considered advisable to concentrate the energies of all the plant, whenever possible, at the sharp bends in the main channel of Victoria harbour. The principal places receiving attention were those at and near to Shoal point, Tuzo and Beaver rocks, and Platform rock. This was found necessary owing to the continually increasing sizes of the vessels using the harbour, and during the ensuing year it should be borne in mind that the most important work to be carried out, of general importance, is at Shoal point. The shallow portion at this place constitutes a channel which is of such a winding nature as to be a menace to the new C.P.Ry. steamers, which, I understand, are expected during the coming year.

By comparison of the records of the amount of work done for the year 1913-14, with that of previous years, it is evident that the efficiency of the plant generally has increased enormously. At the end of the fiscal year under consideration, the methods of reporting of the rock drilling plant were completely reorganized and the general efficiency very much increased. During this period, the rock drilling plant was engaged at Beaver rock and 7,134 cubic yards of rock were removed. Some projecting pinnacles were not shattered by the blast, but were later crushed down to depth by the Lobnitz rock cutter. To date, practically all of this rock referred to has been removed down to 20 feet below L.W.L.

WEST DEMARS.

West Demars is a lumbering, farming, and fruit-growing settlement, situated at the lower end of the Upper Arrow lake. It has a population of about 150.

Authority was granted for the construction of a wharf, during the year 1913-14, to cost $6,500.

Work was begun on November 4 and completed on December 31, 1913.

The structure is a floating wharf, 40 feet by 80 feet, held in place by pile dolphins. The approach is also floating, and is 16 feet wide by 192 feet long, and is held in place by a pile on each side of each section. The sections are 16 feet long and connected to each other by chains. A freight shed 12 feet by 16 feet was built on the wharf.

The total cost of the work was $6,887.72.

Dredging.

On February 19, 1914, the departmental dredge *Sheldrake* began operations at Forest Glen, about a mile below West Demars, and completed the cut there on March 24, 1914. During this period, a cut was made 1,740 feet long with a width of 75 feet and a depth of 9 feet at low water. The material excavated, principally sand, amounted to 20,750 cubic yards, at a cost of $2,076.33.

WILLIAMS HEAD QUARANTINE STATION.

Work done during the fiscal year ending March, 1914, consisted of the following repairs and improvements:—

Building approach to wharf 95 by 25 feet, retaining wall, new gangway, new deck on landing at boat-house, replacing four piles in wharf, repairing copper on piles, levelling up decking, renewing four trestles, shingling roof of shed, replacing 400 feet boom logs and eight boom chains, covering 1,500 yards of roadway with cinders and

gravel, laid down 150 yards of railing, four culverts put in, 30 yards of concrete road put down, improved road leading to the station by widening and cribbing, 500 yards have been gravelled, two hills have been cut down and undergrowth cut; three culverts have been put in this part of the road; the water main has been repaired and undergrowth cut and logs removed.

Amount expended was $5,713.16.

WILLOW POINT.

Willow Point is a farming, fruit-growing and residential district on the west arm of Kootenay lake, seven miles from Nelson. It has a winter population of about 250, and a summer population of about 600.

Authority was granted, in 1913-14, for the construction of a wharf to cost $10,000 and a contract for the work was let to Wm. English of Kaslo, on September 1, 1913, for the sum of $7,250. Work was begun on September 25, and completed on November 30, 1913.

The structure is a pile and timber trestle, 392 feet long and 32 feet wide. The upper 56 feet are level, 352 feet are on a grade of 1 in 12 and the lower 14 feet are level.

Total cost of work, $7,524.96.

WINDERMERE.

Windermere is a village situated on the east side of Windermere lake, at the head of the Columbia river, about 100 miles from Golden. It has a population of about 150, including the surrounding district. The principal industry is farming and stock raising.

Authority was granted, during the fiscal year 1913-14, for the construction of a wharf to cost $1,500.

Work was begun on August 23, and completed on November 18, 1913. The piling was driven by the crew of the department snagboat *Muskrat,* and the superstructure was built by day labour. The wharf is a pile and timber structure 24 feet wide, by 104 feet long, with a freight shed 16 by 24 feet.

The total cost of the work was $1,456.47.

WINTER HARBOUR.

This work consisted of fixing 4 boom logs 100 feet long and 5 boom chains to make it secure. Work was commenced July 1 and was completed August 19, 1913. Two hundred dollars was the amount authorized, and the full amount was expended.

WOLFSENS BAY.

Wolfsens bay, Comox-Atlin district, is a small settlement on the Malaspina straits 75 miles northwest of the city of Vancouver. This point is a receiving and distributing centre for machinery and supplies for numerous logging companies in the vicinity and a regular place of call for coastwise steamers.

Authority being granted to construct a wharf, an agreement was entered into with the firm of James McDonald & Company to perform the work at unit prices of $23 per pile and $30 per M. for timber, both in place. The wharf consists of a pier-head 60 feet by 40 feet with an approach thereto 255 feet long and 14 feet wide.

The work is of pile bent construction and 40 Australian hardwood piles were distributed among the bearing piles.

Work was started on September 28 and completed on October 22 at a cost of $3,048.36.

WOODEN RIVER.

Wooden River, Graham island, Queen Charlotte islands, is the landing place for a large number of settlers in the interior of this island, and in order that a place might be provided where the settlers could land their supplies from small boats, a landing float 30 feet by 40 feet was built under an agreement with Mr. W. G. Gillet, of Vancouver. The cost was estimated at $850, and the work completed for this sum.

WOODWARD'S SLOUGH.

Fraser River.

A contract for the construction of wing dam No. 3 at Woodward's slough, was awarded to Messrs Hodgson, King & McPhalen Bros., of Vancouver, at unit prices for the material entering into the work and aggregating $14,840.50. Work was started on February 13 and was not completed on March 31.

The wing dam follows the general construction of wing dams built on the river, and when completed will consist of two rows of piles driven 11 feet apart and 6 feet centre to centre, longitudinally. A base of mattresses 2 feet thick rests on the bottom and the spaces between piles are being filled with brush weighted with quarried rock. The completed wing dam will be some 682 feet long.

WYATT BAY.

Wyatt Bay, Comox-Atlin district, is situated on the route of steamers plying among the islands of the upper end of the Straits of Georgia. There is no defined settlement on the bay, but the supplies of the settlers of the surrounding islands are received and shipped from this point.

Authority was granted to provide wharf accommodation at this point. It was decided that the requirements of the settlers and shipping generally would be best met by constructing two floats on the bay, one at Observation bay and one on Octopus island.

Work was proceeded with by day labour on October 15, and completed on November 2.

The two floats are of the same construction and size: 34 feet by 60 feet, with the necessary anchorage, building and boom ties.

The total cost of the two floats was $1,636.35.

DREDGING OPERATIONS.

The detail descriptions of work done by the different dredges will be found under the name of place, in the body of the report.

Where dredging is described and classified as "A," "B," or "C," the explanation is, that solid rock or boulders of two cubic yards' capacity or more are covered by Class "A," loose rock or small boulders by Class "B," while all other material, such as sand, clay, etc., are included in Class "C."

The following tables cover the work done by each particular dredge:—

NOVA SCOTIA.

Departmental Dredge 'No. 5,' and Plant in Attendance.

——	April.	May.	June.	July.	August.	September.	October.	November.	December.	January.	February.	March.	Totals
Material handled, c.yds		17,979	31,031	70,700	49,809	70,145	91,301	25,970					356,935
Kind of material		Gravel and mud.	Gravel and stones.	Gravel	Gravel	Gravel	Gravel	Gravel					
Total possible dredging time		160 00	369 00	458 00	380 00	360 00	453 00	180 00					2,360 00
Hours actually dredging		99 30	253 30	352 30	218 00	237 00	347 00	102 00					1,639 30
Per hour, actually dredging c. yds		180·70	122·41	200·56	200·84	295·98	263·11	254·60					217·70

DETAILS OF EXPENDITURE.

	$ cts	$ cts	$ cts	$ cts	$ cts.	$ cts.	$ cts.	$ cts	$ cts.	$ cts	$ cts	$ cts	$ cts
Wages		1,301 20	1,357 78	1,354 91	2,095 39	1,395 18	1,358 07	1,410 19	94 00				10,366 72
Provisions		406 50	457 50	483 30	485 20	472 00	476 00	144 00					3,224 50
Fuel		656 13	1,682 46	1,111 63	1,089 40	1,203 95	1,242 98	625 26					7,611 81
Stores and equipment		528 69	347 84	221 69	619 10	108 67	502 49	45 51	178 06	329 13	7 74		2,888 92
Contingencies		44 30		56 70	19 69	18 70	25 48	10 07	13 26	5 54	34 49	41 73	269 96
Water		238 40	168 00	207 20	201 60	168 00	168 00	140 00					1,291 20
Pilotage and towage													
Wharfage													240 00
Rental hired tugs		65 00	25 00				25 00	55 00	37 50				207 50
Repairs (inc. all items charged to D.V.rep'rs)	6,951 04	5,261 14	1,644 15		50 63	884 21	662 98	232 00	1,382 63	1,312 39	1,764 92	1,655 38	21,801 47
Repairs—Extraordin'y													
Totals	6,951 04	8,501 36	5,682 73	3,435 43	4,561 01	4,250 71	4,461 06	2,962 03	1,915 45	1,647 06	1,807 15	1,697 11	47,872 08

EXPENDITURE INCURRED WORKING AT

——	Trenton, N.S.	—	—	—	—	—	Totals.
	$ cts.						$ cts
Wages—Dredge	10,366 72						10,366 72
" Departmental tugs							
Provisions—Dredge	3,224 50						3,224 50
" Departmental tugs							
Fuel—Dredge	7,611 81						7,611 81
" Departmental tugs							
Stores and equipment—Dredge	2,888 92						2,888 92
" " Departmental tugs							
Contingencies—Dredge	269 96						269 96
" Departmental tugs							
Water—Dredge	1,291 20						1,291 20
" Departmental tugs							
Pilotage and towage—Dredge							
" " Departmental tugs							

Wharfage—Dredge	210 00							210 00
" Departmental tugs								
Repairs—Dredge	21,801 47							21,801 47
" Departmental tugs								
Repairs, extraordinary—Dredge								
" " Departmental tugs								
Rental of hired tugs	207 50							207 50
Total expenditure—Dredge								
Total expenditure—Departmental tugs								
Total expenditure—Hired tugs								
Total—Complete expenditure	47,872 08							47,872 08
C. yds. removed	356,935							356,935
Cost per c. yd. (calculated from total expenditure)	$0·1341							$0·1341
Cost per hour actually dredging	$29·199							$29·199
Kind of material	Gravel, mud, stone.							
Work commenced	May 19							
Work completed	Nov. 15							

DISTRIBUTION OF TIME IN HOURS.

	H. M.	% of total.	—	—	—	—	—	H. M.	% of total.
Lost by storms and weather	10 00	·42						10 00	·42
" repairs	492 30	20·87						492 30	20·87
" coaling	7 00	·29						7 00	·29
" watering									
" tide and current									
" cleaning plant	19 00	·80						19 00	·80
" cleaning boilers	18 00	·76						18 00	·76
" inspecting boilers									
" holidays	30 00	1·26						30 00	1·26
" wniting on scows or tug	9 00	·38						9 00	·38
" waiting orders	13 00	·55						13 00	·55
" towing and preparing for work	10 00	·42						10 00	·42
" moving dredge and changing cut	72 00	3·05						72 00	3·05
" short of coal or supplies									
" fog	3 00	·12						3 00	·12
" miscellaneous	37 00	1·60						37 00	1·60
Total lost time	720 30	30·52						720 30	30 52
Time actually dredging	1639 30	69·48						1639 30	69·48
Possible dredging time	2360 00	100·00						2360 00	100·00

Names of Rented Tugs Included in Expenditure, and Dates Between which Employed, and Localities.

SS. *Hiawatha*, April 15, towing from Market wharf to pier; May 7 from pier to Market wharf; May 8, Pictou to Trenton; Nov 18, Trenton to Pictou; Nov. 21, No. 3 pier to Market wharf
SS. *Arcadia*, May 8, Pictou to Trenton. SS. *Pekin*, Nov. 18, Trenton to Pictou; Dec. 2 to slip at Pictou.
Date Dredge put in commission —May 19. *Dredge laid up for winter at* Pictou, Nov. 18, 1913.

NOVA SCOTIA—*Continued.*

Departmental Dredge 'No. 6,' and Plant in Attendance.

—	April.	May.	June.	July	August.	September.	October.	November.	December.	January.	February.	March.	Totals.
Material handled, c. yds			4,750	5,860	16,310	13,605	10,430	7,670	275				58,000
Kind of material			Mud and stones.	Mud, stones and gravel	Mud and gravel.	Mud and gravel.	Mud and gravel.	Mud and gravel	Mud and gravel.				
Total possible dredging time			250 00	274 00	260 00	260 00	270 00	250 00	60 00				1,624 00
Hours actually dredging			65 05	42 40	97 15	107 10	84 20	74 30	6 30				477 30
Per hour actually dredging.....c. yds			72·98	137·33	167·71	126·96	123·68	102· 95	42·31				123·35

DETAILS OF EXPENDITURE.

	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Wages		365 03	749 10	726 50	714 99	673 40	660 75	623 59	573 10				5,086 46
Provisions			225 00	232 50	232 50	229 75	223 91	203 50	132 16				1,479 32
Fuel		64 75	68 25	101 00		198 75	55 50	256 25					744 50
Stores and equipment		81 84	35 20	20 17		252 71	991 66			8 20	43 19		1,432 97
Contingencies				16 68	15 88	21 72	25 41		8 22			9 30	97 21
Water		7 00	23 25			20 00		52 75					103 00
Pilotage and towage													
Wharfage				20 00			5 00		120 00	2 25			147 25
Rental hired tugs		40 00	2,280 00	1,175 00	1,240 00	875 00	945 00	1,615 00	36 00				8,206 00
Repairs (inc. all items charged to D.V.rep'rs)	1,235 01	2,313 41	107 56	141 00	107 76	1,700 51		879 62	480 55	360 33	859 87	1,526 52	9,712 14
Repairs—extraordinary													
Totals	1,235 01	2,872 03	3,488 36	2,432 85	2,311 13	3,971 84	2,907 23	3,630 71	1,350 03	370 78	903 06	1,535 82	27,008 8

EXPENDITURE INCURRED WORKING AT

—	Canso, N.S.	Little Bras d'Or.	North Sydney	—	—	—	—	Totals.
	$ cts.	$ cts.	$ cts.					$ cts.
Wages—Dredge	692 98	3,041 59	1,351 89					5,086 46
" Departmental tugs	638 30	2,802 40	1,246 82					4,687 52
Provisions—Dredge	201 45	884 82	393 05					1,479 32
" Departmental tugs	199 70	876 38	387 48					1,463 56
Fuel—Dredge	101 40	445 30	197 80					744 50
" Departmental tugs	173 43	748 01	331 25					1,249 69
Stores and Equipment—Dredge	195 65	856 56	380 76					1,432 97
" " Departmental tugs	207 50	900 74	414 31					1,522 55
Contingencies—Dredge	13 27	58 05	25 89					97 21
" Departmental tugs	78 26	176 67	30 87					285 80
Water—Dredge	14 10	61 00	27 90					103 00
" Departmental tugs	16 26	71 37	32 84					120 47
Pilotage and towage—Dredge								
" " Departmental tugs	5 00	25 13	15 00					45 13

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NOVA SCOTIA—*Continued.*

Departmental Dredge 'No. 7,' and Plant in Attendance.

—	April.	May.	June.	July.	August.	September.	October.	November.	December.	January.	February.	March.	Totals.
Material handled, c.yds		1,000	14,400	4,900	14,200	22,400	16,000	15,000	12,200				100,100
Kind of material		Sand	Sand	Mud	Sand.....	Mud and sand.	Mud	Mud.....	Mud				
Total possible dredging time		60 00	250 00	274 00	260 00	260 00	270 00	250 00	240 00				1,864 00
Hours actually dredging		13 00	174 00	68 00	174 00	205 00	156 00	149 00	112 00				1,051 00
Per hour, actually dredging.....c. yds		76·92	82·76	72·06	81·61	109·27	102·56	100·67	108·92				95·24

DETAILS OF EXPENDITURE.

	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Wages			782 00	810 67	722 00	780 34	722 00	782 00	784 00	810 45			6,193 46
Provisions			180 00	186 00	248 00	201 30	248 00	180 00	186 00	156 50			1,585 80
Fuel		419 00	407 00	429 00	437 50	429 00	434 50	445 50	429 00	148 38			3,578 88
Stores and equipment		252 40	15 54	2 79	76 10	134 29	109 23	177 12		521 89			1,289 36
Contingencies		14 27	17 15	14 50	8 40	6 90	29 52	18 75	9 10	10 63			129 22
Water		7 50	8 75	7 50	22 50	31 35	35 15	17 40	22 50	11 10			163 75
Pilotage and towage													
Wharfage		20 00	15 00	15 00		30 00	15 00	15 00	15 00	6 50			131 50
Rental hired tugs			1,095 00	2,992 50	1,206 00	1,174 50	1,197 00	1,147 50	1,170 00	720 00	13 00		10,715 50
Repairs (inc. all items charged to D.V.rep'rs)	3,940 09	11,314 54	3,671 81			1,829 99	548 08		377 52	199 65	495 75	516 75	22,894 18
Repairs—Extraordin'y		641 00											641 00
Totals	3,940 09	12,668 71	6,192 25	4,457 96	2,720 50	4,617 67	3,338 48	2,783 27	2,993 12	2,585 10	508 75	516 75	47,322 65

EXPENDITURE INCURRED WORKING AT

	Liverpool, N.S.	Lockeport, N.S.	—	—	—	—	—	Totals.
	$ cts.	$ cts.						$ cts.
Wages—Dredge	1,367 58	4,825 88						6,193 46
" Departmental tugs								
Provisions—Dredge	350 00	1,235 80						1,585 80
" Departmental tugs								
Fuel—Dredge	789 99	2,788 89						3,578 88
" Departmental tugs								
Stores and equipment—Dredge	284 66	1,004 70						1,289 36
" " Departmental tugs								
Contingencies—Dredge	28 50	100 72						129 22
" Departmental tugs								
Water—Dredge	36 99	126 76						163 75
" Departmental tugs								
Pilotage and towage—Dredge								
" " Departmental tugs								

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NOVA SCOTIA—*Concluded.*

Departmental Dredge 'No. 8,' and Plant in Attendance.

	April.	May.	June.	July.	August.	September.	October.	November.	December.	January.	February.	March.	Totals.
Material handled, c.yds	380	3,800	4,500	6,250	4,850	12,740	3,415						35,935
Kind of material	Sand and stone.	Sand and stone.	Sand and stone.	Sand and stone.	Sand and stone.	Sand	Sand						
Total possible dredging time	92 00	275 30	258 30	291 00	284 00	256 30	105 00						1,562 30
Hours actually dredging	13 00	86 30	102 30	145 00	122 00	173 30	56 00						698 30
Per hour, actually dredging c.yds	29·23	43·93	43·90	43·10	39·75	73·43	60·98						51·45

DETAILS OF EXPENDITURE.

	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	°$ cts.		$ cts.		$ cts.
Wages		565 00	565 00	556 02	870 59	2,194 56	643 37	869 53			12 50		6,276 57
Provisions		181 00	180 00	178 50	182 50	180 00	179 50	24 00	8 50				1,114 00
Fuel		131 25	35 00	95 38	34 83	121 65							418 11
Stores and equipment		6 00	89 10	12 80	26 33	24 56	3 00						161 79
Contingencies		9 80			10 60	18 29	34 19	25 79					98 67
Water		55 75	62 50	68 50	65 00	110 00							361 75
Pilotage and towage													
Wharfage													
Rental hired tugs			25 00		595 00		2 00						622 00
Repairs (inc. all items charged to D.V. rep'rs)	1,341 18	277 54				219 92			183 28				2,021 92
Repairs—Extraordin'y													
Totals	1,341 18	1,226 34	956 60	911 20	1,784 85	2,868 98	862 06	919 32	191 78		12 50		11,074 81

EXPENDITURE INCURRED WORKING AT

	Lakevale, N.S.							Totals.
	$ cts.							$ cts.
Wages—Dredge	6,276 57							6,276 57
" Departmental tugs	2,599 27							2,599 27
Provisions—Dredge	1,114 00							1,114 00
" Departmental tugs	698 30							698 30
Fuel—Dredge	418 11							418 11
" Departmental tugs	1,200 59							1,200 59
Stores and equipment—Dredge	161 79							161 79
" " Departmental tugs	468 72							468 72
Contingencies—Dredge	98 67							98 67
" Departmental tugs	63 27							63 27
Water—Dredge	361 75							361 75
" Departmental tugs	12 52							12 52
Pilotage and towage—Dredge								
" " Departmental tugs	1 50							1 50

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PRINCE EDWARD ISLAND.

Departmental Dredge 'No. 9,' and Plant in Attendance.

	April.	May.	June.	July.	August.	September.	October.	November.	December.	January.	February.	March.	Totals.
Material handled, c.yds	200	17,400	14,600	16,600	10,200	6,700	8,200	6,400	7,700	200			88,20
Kind of material	Mud	Mud	Mud	Mud	Mud and brick clay	Sand and mud.	Sand and mud.	Snad and mud.	Sand, brick clay & rock	Sand, rock & brick clay			
Total possible dredging time	30 00	270 00	250 00	270 00	260 00	260 00	270 00	250 00	270 00	30 00			2,160 00
Hours actually dredging	5 00	216 00	172 30	195 15	111 30	70 30	79 00	68 00	104 00	4 00			1,025 15
Per hour, actually dredging....c. yds	40·00	80·56	84·63	85·02	91·48	95·03	103·80	94·12	74·04	50·00			85·98

DETAILS OF EXPENDITURE.

	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Wages		570 00	639 00	543 55	535 96	715 00	600 75	566 00	561 00	445 56	166 00		5,342 82
Provisions		186 00	180 50	186 00	182 00	180 00	186 00	187 25	186 00	135 00			1,608 75
Fuel		269 27	248 75	272 75	399 68			637 50		210 15			2,038 10
Stores and equipment		181 15	280 59	34 40	154 44	34 55	362 66	180 78	121 24	86 65			1,436 46
Contingencies		20 56	3 80	75	19 55	9 05	26 13	2 70	5 00	26 23	5 00		118 77
Water		21 00	27 00	30 50		20 00	12 00	15 00	11 50	10 00	18		147 18
Pilotage and towage													
Wharfage													
Rental hired tugs		1,085 00	817 50	910 00	1,145 00		1,750 00	875 00	921 25	250 00			7,753 75
Repairs(inc. all items charged to D.V. rep'rs)	1,613 28	694 43	108 75	165 00		1,164 32			376 24	59 07	1,503 19	665 84	6,350 12
Repairs—extraordinary													
Totals	1,613 28	3,027 41	2,305 89	2,142 95	2,436 63	2,122 92	2,937 54	2,464 23	2,182 23	1,222 66	1,674 37	665 84	24,795 95

EXPENDITURE INCURRED WORKING AT

	Montague.	Pinette.	Charlottetown.	Cardigan.	—	—	—	Totals
	$ cts.	$ cts	$ cts.	$ cts.				$ cts.
Wages—Dredge	3,647 90	596 31	244 21	854 40				5,342 82
" Departmental tugs	44 07			88 16				132 23
Provisions—Dredge	1,098 34	179 73	73 25	257 43				1,608 75
" Departmental tugs	14 20			28 68				42 88
Fuel—Dredge	1,392 49	227 85	93 06	324 70				2,038 10
" Departmental tugs	4 56			9 12				13 68
Stores and equipment—Dredge	980 55	160 51	65 80	229 60				1,436 46
" " Departmental tugs	10 30			22 64				32 94
Contingencies—Dredge	81 42	13 28	5 45	18 62				118 77
" Departmental tugs	3 18			4 27				7 45
Water—Dredge	100 63	16 37	6 73	23 45				147 18
" Departmental tugs	2 80			5 35				8 15
Pilotage and towage—Dredge								
" " Departmental tugs								

Wharfage—Dredge																				
" Departmental tugs																				
Repairs—Dredge	4,335	74		708	75		290	53	1,015	10									6,350	12
" Departmental tugs	56	29							112	59									168	8
Repairs, extraordinary—Dredge																				
" " Departmental tugs																				
Rental of hired tugs	5,290	07		865	12		357	24	1,241	32									7,753	75
Total expenditure—Dredge	16,927	14		2,767	92		1,136	27	3,964	62									24,795	95
Total expenditure—Departmental tugs	135	40							270	81									406	21
Total expenditure—hired tugs																				
Total—Complete expenditure	17,062	54		2,767	92		1,136	27	4,235	43									25,202	16
Cubic yards removed	59,000			11,300			4,600		13,300										88,200	
Cost per cubic yard (calculated from total expenditure)	$0·2892			$0·2449			$0·2470		$0·3184										$0·2857	
Cost per hour actually dredging	$24·366			$24·174			$24·13		$25·825										$24·570	
Kind of material	Mud, clay			Sand, mud			Sand, mud		Sand, mud, clay											
Work commenced	April 28			Aug. 28			Oct. 16		Nov. 13											
Work completed	Aug. 27			Oct. 15			Nov. 12		Jan. 3											

DISTRIBUTION OF TIME IN HOURS.

	H. M.	% of total.	H. M.	% of total.	H. M.	% of total.	H. M.	% of total.	—	—	—	H. M.	% of total.
Lost by storms and weather			132 30	27·60	23 00	9·59	77 00	18·33				232 30	10·76
" repairs	66 30	6·54			50 00	20·84	55 00	13·10				171 30	7·94
" coaling	40 00	3·92	8 00	1·67								48 00	2·22
" watering	1 00	·10										1 00	·05
" tide and current	2 30	·24			49 00	20·42	7 00	1·67				58 30	2·70
" cleaning plant	18 00	1·76										18 00	·83
" cleaning boilers			10 00	2·09								10 00	·46
" inspecting boilers			10 00	2·08								10 00	·46
" holidays	30 00	2·94			10 00	4·17	10 00	2·38				50 00	2·30
" waiting on scows or tug	19 00	1·86	20 00	4·16	10 00	4·17						49 00	2·27
" waiting orders	46 45	4·58	17 00	3·55	13 00	5·41	8 00	1·90				103 45	4·80
" towing and repairing for work	23 30	2·30	72 30	15·10	17 00	7·08	30 00	7·14				124 00	5·74
" moving dredge and changing cut	4 00	·39										4 00	·20
" short of coal or supplies													
" fog	5 00	·49			7 00	2·91						12 00	·57
" miscellaneous	63 30	6·23	95 30	19·90	14 00	5·83	69 00	16·43				242 00	11·21
Total lost time	319 45	31·35	365 30	76·15	193 00	80·42	256 00	60·95				1134 15	52·51
Time actually dredging	700 15	68·65	114 30	23·85	47 00	19·58	164 00	39·05				1025 45	47·49
Possible dredging time	1020 00	100·00	480 00	100·00	240 00	100·00	420 00	100·00				2160 00	100·00

Names of Departmental Tugs included in expenditure, dates between which employed, and localities.—Tug *Rona*, towing scows April 30 to May 7 from Charlottetown to Georgetown, and barge *No.* 108 from Georgetown to Pictou, December 11 to 13, with dredge to Cardigan.

Names of Rented Tugs included in expenditure, dates between which employed, and localities.—Tug *Wm. Aitken*, April 28 to January 6, at Montague, Pinette, Charlottetown and Cardigan. Tug *Amherst* towing dredge October 15, Pinette to Charlottetown, November 11 and 14 Charlottetown to Cardigan.

Date Dredge put in commission.—April 28. *Dredge laid up for winter at.*—Georgetown, P.E.I., January 3, 1914.

PRINCE EDWARD ISLAND—*Continued.*

Departmental Dredge 'No. 10,' and Plant in Attendance.

—	April.	May.	June.	July.	August.	September.	October.	November	December.	January.	February.	March.	Totals.
Material handled, c.yds			6,800	12,950	8,575	7,350	7,100	6,000	3,600				52,375
Kind of material			Mud	Mud	Sand and clay.	Brick clay.	Brick clay and mud.	Clay and mud.	Clay and mud.				
Total possible dredging time			190 00	270 00	260 00	260 00	270 00	250 00	120 00				1,620 00
Hours actually dredging			104 15	179 00	159 00	138 15	140 30	151 00	95 00				967 00
Per hour, actually dredging, c. yds.			65·22	72·35	53·93	53·15	50·53	39·73	37·89				54·16

Details of Expenditure.

	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Wages			509 66	588 39	510 64	667 22	614 07	530 30	449 97	104 00			3,974 25
Provisions			167 50	172 00	173 00	178 00	185 00	180 18	147 00				1,202 68
Fuel										583 46			583 46
Stores and equipment		44 18	95 55	27 11	2 23	1 13	539 02	8 66	132 58	104 69			955 15
Contingencies		8 09		9 88	4 75		12 59		2 49	14 42			52 22
Water				2 50				63 95		15 00	1 08		82 53
Pilotage and towage													
Wharfage													
Rental hired tugs			425 00	650 00	650 00	625 00	650 00	625 00	855 00				4,480 00
Repairs (inc. all items charged to D.V. rep'rs)	698 72	1,836 65	213 83		23 88	1,786 87		38 83	355 07	529 89	576 70	519 33	6,579 77
Repairs—Extraordin'y.													
Totals	698 72	1,888 92	1,411 54	1,449 88	1,364 50	3,258 22	2,000 68	1,446 92	1,942 11	1,351 46	577 78	519 33	17,910 06

Expenditure Incurred Working at

—	Charlottetown.	Mt. Stewart.	—	—	—	—	—	Totals.
	$ cts.	$ cts.						$ cts.
Wages—Dredge	3,501 72	472 53						3,974 25
" Departmental tugs								
Provisions—Dredge	1,059 62	143 06						1,202 68
" Departmental tugs								
Fuel—Dredge	513 75	69 71						583 46
" Departmental tugs								
Stores and equipment-Dredge	840 92	114 23						955 15
" " Departmental tugs								
Contingencies—Dredge	46 00	6 22						52 22
" Departmental tugs								
Water—Dredge	72 83	9 70						82 53
" Departmental tugs								
Pilotage and towage—Dredge								
" " Departmental tugs								

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PRINCE EDWARD ISLAND—*Continued.*

Departmental Dredge 'No. 11.' and Plant in Attendance.

	April.	May.	June.	July.	August.	September.	October.	November.	December.	January.	February.	March.	Totals
Material handled, c. yds.	1,100	4,950	5,500	5,200	3,050	2,800	4,750	1,800					29,150
Kind of material	Mud and sand.	Mud and pipe clay.	Mud and sand.	Sand and mud.	Pipe clay	Pipe clay and sand.	Mud and sand.	Mud and sand.					
Total possible dredging time	90 00	270 00	250 00	270 00	260 00	260 00	270 00	190 00					1,860 00
Hours actually dredging	35 00	151 00	158 30	160 00	134 30	97 30	155 00	65 00					956 30
Per hour actually dredging, c. yds.	31 43	32 78	34 70	32 49	22 69	28 71	30 65	27 70					30 48

DETAILS OF EXPENDITURE.

	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Wages		430 00	435 00	430 00	430 00	430 00	453 50	430 00	108 00				3,146 50
Provisions			274 50	139 50	139 50	135 00	139 50	135 00	6 57				969 57
Fuel		213 97		521 11									735 08
Stores and equipment		37 07	261 59	37 11	63 47		132 43	43 83	86 44	14 08			676 02
Contingencies		6 56	4 40	8 30	4 35	33 70		43 53	17 25	0 30	5 00		123 39
Water		21 50	9 50	17 00	12 00	20 00		4 00					84 00
Pilotage and towage							32 00						32 00
Wharfage													
Rental hired tugs		560 00	360 00	405 00	390 00	390 00	790 00	550 00		675 00	292 50		4,412 50
Repairs (inc. all items charged to D.V.rep'rs)	983 06	223 11	27 00			340 15		47 50	1,064 58	343 00	522 08	1,555 48	5,105 96
Repairs—Extraordin'y													
Totals	983 06	1,492 21	1,371 99	1,558 02	1,039 32	1,348 85	1,547 43	1,253 86	1,282 84	1,032 38	819 58	1,555 48	15,285 02

EXPENDITURE INCURRED WORKING AT

	Tignish.	Grand River.	Malpeque.					Totals.
	$ cts.	$ cts.	$ cts.					$ cts.
Wages—Dredge	2,423 08	569 17	154 25					3,146 50
" Departmental tugs	191 49	44 98	12 62					249 09
Provisions—Dredge	746 67	175 25	47 65					969 57
" Departmental tugs	53 86	12 64	3 69					70 19
Fuel—Dredge	566 00	133 01	36 07					735 08
" Departmental tugs	9 55	2 24	0 60					12 39
Stores and equipment—Dredge	520 40	122 30	33 32					676 02
" " Departmental tugs	41 80	9 60	2 60					54 00
Contingencies—Dredge	95 00	22 31	6 08					123 39
" Departmental tugs	7 70	4 36	1 41					13 47
Water—Dredge	64 80	15 20	4 00					84 00
" Departmental tugs	10 30	2 40	0 65					13 25
Pilotage and towage—Dredge		5 00	27 00					32 00
" " Departmental tugs								

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PRINCE EDWARD ISLAND—*Concluded.*

Departmental Dredge 'No. 12,' and Plant in Attendance.

	April.	May.	June.	July.	August.	September.	October.	November.	December.	January.	February.	March.	Totals.
Material handled, c.yds							27,688 19	5,131 12					32,820 04
Kind of material							Sand	Sand					
Total possible dredging time							270 00	70 00					340 00
Hours actually dredging							191 00	34 00					225 00
Per hour, actually dredging.....c. yds							144 96	150 91					145 87

Details of Expenditure.

	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Wages				35 68	170 17	419 89	604 31	578 75	21 80				1,830 60
Provisions				16 50	41 25	131 65	196 73	166 90		19 09			572 12
Fuel						273 93	664 60	205 87	3 20				1,147 60
Stores and equipment						568 86	160 03	215 43	1 00	4 00	18 25	74 25	1,041 82
Contingencies				6 75	5 00		105 00	16 55	12 00		12 03		157 33
Water								39 00					39 00
Pilotage and towage													
Wharfage									4 50		1 00		5 50
Rental hired tugs						1,400 00	810 00	1,307 60	272 00				3,789 60
Repairs (inc. all items charged to D.V.rep'rs)				96 43		6 00			471 35	525 71	813 64	517 78	2,430 04
Repairs—extraordinary													
Totals				155 36	216 42	2,800 33	2,540 67	2,530 10	785 85	548 83	844 93	592 03	11,014 51

Expenditure Incurred Working at

	Oromocto, N.B	—	—	—	—	—	—	Totals.
	$ cts.							$ cts.
Wages—Dredge	1,830 60							1,830 60
" Departmental tugs								
Provisions—Dredge	572 12							572 12
" Departmental tugs								
Fuel—Dredge	1,147 60							1,147 60
" Departmental tugs								
Stores and equipment—Dredge	1,041 82							1,041 82
" " Departmental tugs								
Contingencies—Dredge	157 33							157 33
" Departmental tugs								
Water—Dredge	39 00							39 00
" Departmental tugs								
Pilotage and towage—Dredge								
" " Departmental tugs								

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NEW BRUNSWICK.

Departmental Dredge 'No. 1,' and Plant in Attendance.

	April.	May	June.	July.	August.	September	October.	November	December.	January.	February.	March.	Totals.
Material handled, c.yds			37,086	45,781	39,671	34,227	36,247	16,094	8,200	14,200	9,100		240,579
Kind of material			Mud	Mud	Mud	Mud	Mud and sand.	Mud and sand.	Mud and sand.	Mud and sand.	Mud and sand.		
Total possible dredging time			230 00	270 00	260 00	260 00	270 00	250 00	270 00	270 00	180 00		2,260 00
Hours actually dredging			60 11	73 36	62 25	64 05	82 35	37 25	18 30	24 30	14 15		437 32
Per hour, actually dredging c. yds			616·24	622·03	635·60	534·13	438·57	430·09	443·24	579·64	638·60		549·86

DETAILS OF EXPENDITURE.

	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Wages		571 15	1,479 42	1,500 87	1,581 99	1,759 00	1,731 66	1,500 81	1,419 88	1,280 00	1,290 00	262 00	14,377 08
Provisions		173 55	393 20	418 85	425 15	412 45	417 10	394 00	356 80	354 50	320 00		3,665 60
Fuel		240 01	514 06	341 19	677 76	295 48	381 94	660 89	552 07	673 55	638 64		4,975 59
Stores and equipment		274 83	334 25	494 26	359 25	93 26	524 74	684 86	139 65	32 92	140 83	33 10	3,111 95
Contingencies		10 00	3 33	9 20		27 29		11 29	6 73	7 92	2 01		77 77
Water		4 00	46 38			82 38				103 63			236 39
Pilotage and towage		10 00	125 00	135 00	130 00	130 00	135 00	125 00	135 00	135 00	120 00		1,210 00
Wharfage		400 50	366 60	366 60	366 60	366 60	366 60	366 60	366 60	166 50	57 00		3,186 00
Rental hired tugs			1,282 00	1,060 00	2,093 00	1,280 00	1,050 00	1,000 00	440 00	73 50			8,278 50
Repairs (inc. all items charged to D.V.rep'rd)	2,381 68	4,999 11	4,445 71		1,102 02	1,175 22	928 63	775 66	664 84	48 04	525 28	1,721 56	18,767 72
Repairs—Extraordinary													
Totals	2,381 68	6,713 45	8,989 35	4,325 37	6,735 17	5,621 08	5,535 07	5,518 51	4,080 94	2,875 56	3,093 76	2,016 66	57,886 60

EXPENDITURE INCURRED WORKING AT

	St. John Chann'l	Totals.
	$ cts.	$ cts.
Wages—Dredge	14,377 08	14,377 08
" Departmental tugs	5,246 43	5,246 43
Provisions—Dredge	3,665 60	3,665 60
" Departmental tugs	1,518 70	1,518 70
Fuel—Dredge	4,975 59	4,975 59
" Departmental tugs	2,703 95	2,703 95
Stores and equipment—Dredge	3,111 95	3,111 95
" " Departmental tugs	1,563 38	1,563 38
Contingencies—Dredge	77 77	77 77
" Departmental tugs	5 54	5 54
Water—Dredge	236 39	236 39
" Departmental tugs		
Pilotage and towage—Dredge	1,210 00	1,210 00
" " Departmental tugs	20 00	20 00

Wharfage—Dredge	3,186 00							3,186 00
" Departmental tugs	5 60							5 60
Repairs—Dredge	18,767 72							18,767 72
" Departmental tugs	5,691 26							5,691 26
Repairs, extraordinary—Dredge								
" Departmental tugs	797 00							797 00
Rental of hired tugs	8,278 50							8,278 50
Total expenditure—Dredge	57,886 60							57,886 60
Total expenditure—Departmental tugs	17,551 86							17,551 86
Total expenditure—Hired tugs								
Total—Complete expenditure	75,438 46							75,438 46
Cubic yards removed	240,579							240,579
Cost per c. yd. (calculated from total expenditure)	$0·3135							$0·3135
Cost per hour actually dredging	$172·36							$172·36
Kind of material	Mud and sand							
Work commenced	June 4							
Work completed	Feb. 21							

DISTRIBUTION OF TIME IN HOURS.

	H. M.	% of total.						H. M.	% of total.
Lost by storms and weather	368 58	16·32						368 58	16·32
" repairs	245 50	10·87						245 50	10·87
" coaling	11 12	·50						11 12	·50
" watering									
" tide and current	677 19	29·97						677 19	29·97
" cleaning plant									
" cleaning boilers	70 00	3·10						70 00	3·10
" inspecting boilers									
" holidays	40 00	1·77						40 00	1·77
" waiting on scows or tugs	105 29	4·67						105 29	4·67
" waiting orders									
" towing and preparing for work	28 40	1·27						28 40	1·27
" moving dredge and changing cut	61 20	2·71						61 20	2·71
" short of coal or supplies									
" Fog	97 35	4·32						97 35	4·32
" miscellaneous	116 05	5·14						116 05	5·14
Total lost time	1822 28	80·64						1822 28	80·64
Time actually dredging	437 32	19·36						437 32	19·36
Possible dredging time	2260 00	100·00						2260 00	100·00

Names of Departmental Tugs included in expenditure, dates between which employed, and localities.—Tug *Helena*, from April 1, 1913, to March 31, 1914, at St. John, N.B.

Names of Rented Tugs included in expenditure, dates between which employed, and localities.—Tug *Mercid* towing dredge, McAvity's to Lower Cove, May 8 to 16 towing dredge Lower Cove to McAvity's and shifting scows; June 2 to Jan. 16, attending dredge St. John Channel, Tug *Winnie*. August 1 to September 7, attending dredge St. John Channel. Tug *Mildred*, November 14 to 15, St. John Channel.

Date Dredge put in commission, June 4. Dredge laid up for winter at St. John, N.B., February 26.

NEW BRUNSWICK—*Continued.*

Departmental Dredge 'No. 2,' and Plant in Attendance.

—	April.	May.	June.	July.	August.	September.	October.	November.	December.	January.	February.	March.	Totals.
Material handled, c.yds.			1,925	22,916	21,200	13,200	11,300	6,000					76,541
Kind of material			Sand and gravel.	Mud, clay and gravel	Rock, sand and gravel	Stone and hard-pan.	Stone, sand and gravel	Mud and gravel					
Total possible dredging time			70 00	304 00	313 45	305 00	284 00	130 00					1,406 45
Hours actually dredging			17 55	151 48	109 25	81 10	89 00	33 00					482 18
Per hour actually dredging			107·42	150·96	193·74	162·62	126·96	181·81					158·70

DETAILS OF EXPENDITURE.

	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Wages		232 64	676 04	974 30	898 93	991 93	959 55	735 72		13 80			5,482 91
Provisions		72 90	207 50	299 20	483 00	315 60	308 50	219 00	2 50				1,907 60
Fuel		476 64		611 49	276 00	996 00		760 63					3,120 76
Stores and equipment		554 29	98 23	129 41	531 57	142 14	33 42	342 80	55 95	19 60	181 50	171 60	2,260 51
Contingencies			11 91	13 00	9 25		2 50	62 76	25 59				125 04
Water								4 40					4 40
Pilotage and towage							18 40	55 98					74 38
Wharfage													
Rental hired tugs			658 75		1,305 52	2,000 00	626 00						4,590 27
Repairs (inc. all items charged to D.V.rep'rs)	1,893 69	10,085 07	3,479 91	264 53	35 29	88 42		159 16	1,821 14	366 17	768 88	725 97	19,688 23
Repairs—Extraordinary													
Totals	1,893 69	11,421 54	5,132 37	2,291 93	3,539 56	4,533 49	1,948 37	2,340 45	1,905 18	399 57	950 38	897 57	37,254·10

EXPENDITURE INCURRED WORKING AT

—	Campbellton.	Bathurst.	—	—	—	—	—	Totals.
	$ cts.	$ cts.						$ cts.
Wages—Dredge	1,088 24	4,394 67						5,482 91
" Departmental tugs	658 24	2,617 35						3,275 59
Provisions—Dredge	377 06	1,530 54						1,907 60
" Departmental tugs	181 39	763 71						945 10
Fuel—Dredge	558 57	2,562 19						3,120 76
" Departmental tugs	200 47	817 00						1,017 47
Stores and equipment—Dredge	448 66	1,811 85						2,260 51
" " Departmental tugs	152 75	593 17						745 92
Contingencies—Dredge	25 77	99 27						125 04
" Departmental tugs	18 89	96 60						115 49
Water—Dredge	0 95	3 45						4 40
" Departmental tugs	7 63	28 67						36 30
Pilotage and towage—Dredge	15 27	59 11						74 38
" " Departmental tugs	0 80	2 95						3 75

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NEW BRUNSWICK—*Continued.*

DEPARTMENTAL DREDGE 'No. 3,' AND PLANT IN ATTENDANCE.

	April.	May.	June.	July.	August.	September.	October.	November.	December.	January.	February.	March.	Totals.
Material handled, c.y ds.		14,495	15,833	26,510	31,199	23,789	17,099	12,183					141,099
Kind of material	Sand and clay	Sand, gravel clay.	Sand, gravel clay.	Sand, gravel clay.	Sand and sticks.	Sand and sticks.	Sand and sticks.						
Total possible dredging time		240 00	324 30	339 00	317 30	316 00	291 00	255 00					2,083 00
Hours actually dredging		82 35	78 30	91 00	80 00	149 00	123 30	51 30					656 05
Per hour actually dredging.....c. yds		175·52	201·69	291·32	427·37	159·66	138·45	236·56					219·63

DETAILS OF EXPENDITURE.

	$ cts.	$ cts.	$ cts	$ cts	$ cts.	$ cts.	$ cts.	$ cts	$ cts.	$ cts.	$ cts	$ cts	$ cts.
Wages		698 54	939 60	897 20	910 55	896 89	821 16	988 01	260 00				6,411 95
Provisions		230 00	260 96	231 00	268 40	259 81	254 08	235 50	112 52				1,852 27
Fuel			1,068 22	138 52	809 58	391 62	573 15	310 43	17 84				3,309 36
Stores and equipment		340 47	85 89	547 00	70 57	191 19	323 49	75 19		5 30	11 05		1,650 15
Contingencies		102 42	7 67				3 50	4 50	14 94	6 85		19 34	159 22
Water			50 00	7 20	16 10		181 00	33 40					287 70
Wharfage and towage													
Rental hired tugs			394 00			1,668 00		974 00					3,036 50
Repairs (inc. all items charged to D.V. rep'rs)	1,264 94	2,175 32	766 65	121 70	181 15	20 44			18 40	466 06	1,265 25	544 08	6,823 99
Repairs, extraordinary		1,325 00		364 38									1,689 38
Totals	1,264 94	4,871 75	3,572 99	2,307 00	2,256 35	3,427 95	2,156 38	2,621 53	423 70	478 21	1,276 30	563 42	25,220 52

EXPENDITURE INCURRED WORKING AT

	Bathurst.	Chatham.	Campbellton.	—	—	—	—	Totals.
	$ cts	$ cts.	$ cts.					$ cts
Wages—Dredge	2,640 05	1,077 30	2,694 60					6,411 95
" Departmental tugs	1,799 02	745 37	1,838 42					4,372 81
Provisions—Dredge	754 82	310 80	786 65					1,852 27
" Departmental tugs	405 37	166 52	414 45					986 34
Fuel—Dredge	1,357 16	565 00	1,387 20					3,309 36
" Departmental tugs	710 90	288 02	716 30					1,715 22
Stores and equipment—Dredge	683 85	277 55	688 75					1,650 15
" " Departmental tugs	188 20	77 30	191 37					456 87
Contingencies—Dredge	65 66	27 44	66 12					159 22
" Departmental tugs	48 90	20 10	49 04					118 04
Water—Dredge	118 30	48 20	121 20					287 70
" Departmental tugs	37 74	14 73	38 97					91 44
Pilotage and towage—Dredge								
" " Departmental tugs	5 93	2 43	6 39					14 75
Wharfage—Dredge								
" Departmental tugs	63		1 00					1 63

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NEW BRUNSWICK—*Concluded.*

Departmental Rock Breaker Lobnitz 'No. 3,' and Plant in Attendance.

—	April.	May.	June.	July.	August.	September.	October.	November.	December.	January.	February.	March.	Totals.
Material broken, c.yds.					333	2,666	2,218	427					5,644
Number of blows struck					1,231	11,917	5,507	1,318					19,973
Number of holes					159	2,319	973	182					3,633
Average penetration feet					477	6,923	2,875	546					10,821
Total possible working time					63 00	254 00	260 00	110 00					687 00
Hours actually working					14 04	123 55	66 05	22 00					226 04
Per hole cubic yards					2·09	1·15	2·28	2·34					1·55
Per hour actual work.....c. yds.					23·66	21·51	33·56	19·41					24·96

DETAILS OF EXPENDITURE.

	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Wages				239 15	350 00	383 93	603 70	352 93		28 69			1,958 31
Provisions						306 00	211 50	18 00					535 50
Fuel				192 50		308 75	273 75	100 94					875 94
Stores and equipment				141 89	304 07	176 90	79 22	61 78				37 49	801 35
Contingencies				108 60	2 84	10 70	19 39						141 53
Water						64 50	13 50	14 00					92 00
Pilotage and towage						9 00							9 00
Scow hire						92 50	50 00	60 00					202 50
Rental hired tugs				1,200 00	495 00	1,125 00	812 50	855 00					4,487 50
Repairs (inc. all items charged to D.V. rep'rs)									242 30	248 34	288 81	298 06	1,077 51
Repairs—Extraordin'y.													
Totals				1,882 14	1,151 91	2,477 28	2,063 56	1,462 65	242 30	276 94	288 81	335 55	10,181 14

EXPENDITURE INCURRED WORKING AT

—	Buctouche, N.B.	—	—	—	—	—	—	Totals.
	$ cts.							$ cts.
Wages—Dredge	1,958 31							1,958 31
" Departmental tugs								
Provisions—Dredge	535 50							535 50
" Departmental tugs								
Fuel—Dredge	875 94							875 94
" Departmental tugs								
Stores and equipment—Dredge	801 35							801 35
" " Departmental tugs								
Contingencies—Dredge	141 53							141 53
" Departmental tugs								
Water—Dredge	92 00							92 00
" Departmental tugs								

Pilotage and towage—Dredge	9 00								9 00
" " Departmental tugs									
Scow hire—Dredge	202 50								202 50
" Departmental tugs									
Repairs—Dredge	1,077 51								1,077 51
" Departmental tugs									
Repairs, extraordinary—Dredge									
" " Departmental tugs									
Rental of hired tugs	4,487 50								4,487 50
Total expenditure—Dredge	10,181 14								10,181 14
Total expenditure—Departmental tugs									
Total expenditure—Hired tugs									
Total—Complete expenditure	10,181 14								10,181 14
Cubic yards broken	5,644								5,644
Cost per cubic yard broken	$1·803								
Cost per hour actual breaking	$45·037								
Cost per hole	$2·802								
Cost per foot of penetration	$0·940								
Kind of material	Rock								
Work commenced	Aug. 25								
Work completed	Nov. 12								

DISTRIBUTION OF TIME IN HOURS.

	H. M.	% of total.	—	—	—	—	—	—	H. M.	% of total.
Lost by storms and weather	240 46	35·06							240 46	35·06
" repairs	13 35	1·96							13 35	1·96
" coaling	4 15	·62							4 15	·62
" watering	4 00	·60							4 00	·60
" tide and current	14 30	2·12							14 30	2·12
" cleaning plant	2 15	·31							2 15	·31
" cleaning boilers										
" inspecting boilers										
" holidays	20 00	2·91							20 00	2·91
" waiting on scows or tug										
" waiting orders										
" towing and preparing for work	16 30	2·41							16 30	2·41
" moving anchors	42 50	6·20							42 50	6·20
" short of coal or supplies	12 00	1·76							12 00	1·76
" miscellaneous	90 15	13·14							90 15	13·14
Total lost time	460 56	67·09							460 56	67·09
Time actually breaking	226 04	32·91							226 04	32·91
Possible working time	687 00	100·00							687 00	100·00

Names of Rented Tugs included in expenditure, dates between which employed, and localities.—SS. *Reliable*, from July 21 to 26, towing from Liverpool to Buctouche. Tug *Maggie M.*, from August. 19 to October 10 at Buctouche. Tug *T. A. Stewart* from October 10 to 25 at Buctouche. Tug *St. Andrew* from October 25 to November 15 at Buctouche.

Date Dredge put in commission, August 25. *Dredge laid up for winter at* Buctouche, N.B., November 15, 1913.

NOVA SCOTIA—*Continued.*

Departmental Dredge 'No. 4,' and Plant in Attendance.

——	April.	May.	June.	July.	August.	September.	October.	November	December.	January.	February.	March.	Totals.
Material handled, c.yds.			15,700	31,161	24,275	10,270	32,400	12,800					126,606
Kind of material			Sand, mud and rock.	Sand and mud.	Sand, mud and rock brick clay	Sand and mud.	Sand and rock.	Sand, mud clay.					
Total possible dredging time			261 00	268 30	265 00	268 00	270 00	130 00					1,462 30
Hours actually dredging			117 15	205 30	182 00	76 00	213 30	88 00					882 15
Per hour, actually dredging.....c. yds			133 90	151 64	133 38	135 13	151 76	145 45					143 50

DETAILS OF EXPENDITURE.

	$ cts	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts	$ cts	$ cts	$ cts.
Wages		40 00	629 16	829 26	848 60	505 00	1,082 77	588 00	224 94	122 00	6 00	95 70	4,971 43
Provisions			166 50	221 44	186 00	180 00	211 40	195 00				11 00	1,171 34
Fuel			1,528 29	644 91			817 21		70 00				3,060 41
Stores and equipment			112 15	300 33	27 33	36 10	111 05			142 33	308 35		1,037 64
Contingencies		71 25	1 65	21 04	2 70	4 10	124 13	3 55		18 55			246 97
Water			36 15	64 05	66 25	65 33	105 62	63 28		4 95			105 63
Pilotage and towage													
Wharfage													
Rental hired tugs					250 00		250 00						500 00
Repairs (inc. all items charged to D.V.rep'rs)	1,241 09	1,028 30								535 23	274 16	320 39	3,399 17
Repairs, extraordinary													
Totals	1,241 09	1,139 55	2,473 90	2,081 03	1,380 88	790 53	2,702 18	849 83	294 94	823 06	588 51	427 09	14,792 59

EXPENDITURE INCURRED WORKING AT

——	Chanuel M.I.	Amherst, M.I.	—	—	—	—	—	Totals.
	$ cts.	$ cts.						$ cts
Wages—Dredge	2,866 46	2,104 97						4,971 43
" Departmental tugs	1,338 62	1,020 13						2,358 75
Provisions—Dredge	675 02	495 72						1,171 34
" Departmental tugs	376 47	282 46						658 93
Fuel—Dredge	1,765 36	1,295 05						3,060 41
" Departmental tugs	132 27	87 93						220 20
Stores and Equipment—Dredge	596 85	440 79						1,037 64
" " Departmental tugs	289 98	216 15						506 13
Contingencies—Dredge	142 45	104 52						246 97
" Departmental tugs	30 52	21 72						52 24
Water—Dredge	234 02	171 61						405 63
" Departmental tugs	71 22	54 15						125 37
Pilotage and towage—Dredge								
" " Departmental tugs	6 61	5 39						12 00

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QUEBEC.

Departmental Dredge 'No. 101,' and Plant in Attendance.

—	April.	May.	June.	July.	August.	September.	October.	November.	December.	January.	February.	March.	Totals.
Material handled, c.yds		2,667	3,027	3,144	2,239	691	552	467	131				12,918
Kind of material		Clay	Clay	Clay	Clay and rock.	Rock	Rock	Rock	Rock				
Total possible dredging time		250	250	270	260	250	270	250	60				1,870
Hours actually dredging		250	240	240	250	170	130	118	35				1,523
Per hour actually dredging.....c. yds)		10½	12½	13	9	4	4¼	4	3¾				8½

DETAILS OF EXPENDITURE.

	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Wages	187 67	1,570 50	1,074 00	1,051 00	1,082 25	1,006 75	1,035 50	926 75	417 67		151 37	225 11	8,728 57
Provisions													
Fuel				249 01		142 26	206 25	63 69	322 12				983 33
Stores and equipment				192 15	42 45		238 81	83 58	344 81				901 80
Contingencies		24 60			15 60	12 10	20 70	20 00	25 70				118 70
Water													
Pilotage and towage													
Wharfage													
Rental hired tugs													
Repairs (inc. all items charged to D.V.rep'rs)			44 05		53 15		94 11	46 95	100 46	120 53		60 00	519 25
Repairs—Extraordin'y.													
Totals	187 67	1,595 10	1,118 05	1,492 16	1,193 45	1,161 11	1,595 37	1,140 97	1,210 76	120 53	151 37	285 11	11,251 65

EXPENDITURE INCURRED WORKING AT

—	St. Louis River.	—	—	—	—	—	—	Totals.
	$ cts.							$ cts.
Wages—Dredge	8,728 57							8,728 57
Provisions—Dredge								
" Departmental tugs								
Fuel—Dredge	983 33							983 33
Stores and equipment—Dredge	901 80							901 80
Contingencies—Dredge	118 70							118 70
Water—Dredge								
" Departmental tugs								
Pilotage and towage—Dredge								
" " Departmental tugs								
Wharfage—Dredge								
" Departmental tugs								

Repairs—Dredge	519 25								519 25
" Departmental tugs									
Repairs, extraordinary—Dredge									
" " Departmental tugs									
Rental of hired tugs									
Total expenditure—Dredge	11,251 65								11,251 65
Total expenditure—Departmental tugs									
Total expenditure—Hired tugs									
Total—Complete expenditure	11,251 65								11,251 65
Cubic yards removed	12,918								12,918
Cost per c. yd. (calculated from total expenditure)	cts. 87·10								cts. 87·10
Cost per hour actually dredging	$7·38								$7·38
Kind of material	Clay and rock								
Work commenced	May 3								
Work completed	Dec. 6								

DISTRIBUTION OF TIME IN HOURS.

	H. M.	% of total.	—	—	—	—	—	—	H. M.	% of total.
Lost by storms and weather	60	3·2							60	3·2
" repairs	238 00	12·7							238 00	12·7
" coaling										
" watering	9 00	·5							9 00	·5
" tide and current										
" cleaning plant										
" cleaning boilers										
" inspecting boilers										
" holidays	40 00	2·1							40 00	2·1
" waiting on scows or tug										
" waiting orders										
" towing and preparing for work										
" moving dredge and changing cut										
" short of coal or supplies										
" miscellaneous										
Total lost time	347 00	18·5							347 00	18·5
Time actually dredging	1523 00	81·5							1523 00	81·5
Possible dredging time	1870 00	100·00							1870 00	100·00

Date Dredge put in commission.—April 14. *Dredge laid up for winter at* St. Louis de Gonzague, December 24.
Remarks.—Dredge casting over all season.

QUEBEC—*Continued.*

Departmental Dredge 'No. 102,' and Plant in Attendance.

——	April.	May.	June.	July.	August.	September.	October.	November.	December.	January.	February.	March.	Totals.
Material handled, c.yds			1,117	6,421	3,915	3,203	3,697						18,353
Kind of material			Clay	Clay	Boulders, rock, hard-pan, gravel	Boulders, gravel, sand	Rock, gravel boulders, clay.						
Total possible dredging time			200 00	270 00	270 00	260 00	210 00						1,210 00
Hours actually dredging			46 15	205 30	149 30	142 30	128 00						671 75
Per hour, actually dredging c. yds			24 00	31 00	26 00	22 00	29 00						27 00

Details of Expenditure.

	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Wages	123 00	450 15	505 00	518 06	643 00	687 00	637 22	185 74	25 81	50 00	50 00	130 00	4,004 98
Provisions		134 06	177 80	165 00	205 80	218 80	187 20	60 00				15 50	1,164 16
Fuel				475 77	40 28	18 70	6 96	510 37	131 36				1,183 44
Stores and equipment	1 35	64 75		140 25	181 59	132 01	75 50	9 00	20 43	7 45	9 02	303 63	944 98
Contingencies		13 75	24 91	1 30	3 00	11 77	3 00	4 50	62 50	15 00		613 72	753 45
Water													
Pilotage and towage													
Wharfage													
Rental hired tugs													
Repairs (inc. all items charged to D.V. rep'rs)	254 74	563 38	157 27	51 17	192 81	164 91	547 27	386 73	906 67	889 76	496 37	213 53	4,824 61
Repairs, extraordinary							475 00						475 00
Totals	379 09	1,226 09	864 98	1,351 55	1,266 48	1,233 19	1,457 15	1,156 34	1,146 77	962 21	555 39	1,276 38	12,875 62

Expenditure Incurred Working at

——	Poupore.	Long Rapids.	—	—	—	—	—	Totals.
	$ cts.	$ cts.						$ cts.
Wages—Dredge	2,168 68	1,836 30						4,004 98
" Departmental tugs								
Provisions—Dredge	630 39	533 77						1,164 16
" Departmental tugs								
Fuel—Dredge	640 82	542 62						1,183 44
" Departmental tugs								
Stores and equipment—Dredge	511 70	433 28						944 98
" " Departmental tugs								
Contingencies—Dredge	407 99	345 46						753 45
" Departmental tugs								

Water—Dredge									
" Departmental tugs									
Pilotage and towage—Dredge									
" " Departmental tugs									
Wharfage—Dredge									
" Departmental tugs									
Repairs—Dredge	2,355 30		1,994 31						4,349 61
" Departmental tugs									
Repairs, extraordinary—Dredge	257 22		217 78						475 00
" " Departmental tugs									
Rental of hired tugs									
Total expenditure—Dredge	6,972 10		5,903 52						12,875 62
Total expenditure—Departmental tugs									
Total expenditure—hired tugs									
Total—Complete expenditure	6,972 10		5,903 52						12,875 62
Cubic yards removed	11,388		6,965						18,353
Cost per cubic yard (calculated from total expenditure)	61·22 cents.		84·76 cents.						70·15 cents.
Cost per hour actually dredging	$19·17		$19·17						$19·17
Kind of material	Clay.		Boulders, rock, hardpan, gravel sand.						
Work commenced	June 7	Oct. 14	Aug. 12						
Work completed	Aug. 7	Oct. 24	Oct. 11						

DISTRIBUTION OF TIME IN HOURS.

	H. M.	% of total.	H. M.	% of total.	—	—	—	—	—	H. M.	% of total.
Lost by storms and weather	1 30	·2	8 00	1·4						9 30	·7
" repairs	23 30	3·6	22 30	4·						46 00	3·8
" coaling	5 30	·8	10 45	1·9						16 15	1·3
" watering	4 00	·6	7 30	1·3						11 30	·9
" tide and current	1 00	·2								1 00	
" cleaning plant	10 30	1·6	9 30	1·6						20 00	1·6
" cleaning boilers											
" inspecting boilers	9 15	1·4								9 15	·7
" holidays	20 00	3·1	10 00	1·8						30 00	2·4
" waiting on scows or tug	113 00	17·4	26 30	4·8						139 30	11·2
" waiting orders	15 00	2·3								15 00	1·2
" towing and preparing for work	10 00	1·5	8 00	1·4						18 00	1·4
" moving dredge and changing cut	4 30	·7	3 00	·5						7 30	·6
" short of coal or supplies	48 00	7·4	12 00	2·2						60 00	4·9
" drilling and blasting rock			71 30	12·8						71 30	5·9
" miscellaneous	20 30	3·2	62 45	11·3						83 15	6·9
Total lost time	286 15	44·	252 00	45·						538 15	43·5
Time actually dredging	363 45	50·	308 00	55·						671 45	56·5
Possible dredging time	650 00	100·	560 00	100·						1210 00	100·

Names of Departmental tugs included in expenditure, dates between which employed, and localities.—Tug *Eileen* in attendance all season.
Date Dredge put in commission.—June 4. *Dredge laid up for winter at* Buckingham, Que., November 15, 1913.

QUEBEC—*Continued.*

Departmental Dredge "No. 103" and Plant in Attendance.

—	April.	May.	June	July.	August.	September.	October.	November	December.	January.	February.	March.	Totals.
Material handled, c.yds		5,655	8,580	9,848	9,162	8,342	4,827	5,930					52,344
Kind of material		Sand & clay	Sand & clay	Sand & clay	Sand & clay	Sand & clay	Sand & clay	Boulders, hardpan and clay.					
Total possible dredging time		180 00	250 00	270 00	260 00	260 00	253 00	189 00					1,662 00
Hours actually dredging		138 00	185 30	208 00	195 00	171 00	112 30	138 00					1,148 00
Per hour, actually dredging.....c. yds.		41·00	46·25	47·25	47·00	48·75	42·75	43·00					45·75

DETAILS OF EXPENDITURE.

	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Wages	497 67	534 16	542 74	512 58	525 00	490 00	560 00	557 43	336 40	70 00	50 00	335 45	5,011 43
Provisions	159 50	177 80	172 24	159 68	166 20	150 00	191 35	176 20	66 29			86 13	1,505 39
Fuel		4 00		502 63		212 80	170 24	165 46				173 20	1,228 33
Stores and equipment	9 65	169 96	37 92	20 00	8 43	8 28	30 67	17 74	3 65		6 50	258 32	571 12
Contingencies	27 45	38 43	4 80		22 58	3 00	13 11	3 72	69 25			337 35	519 69
Water													
Pilotage and towage									39 00				39 00
Wharfage													
Rental hired tugs													
Repairs (inc. all items charged to D.V rep'rs)	195 87	179 02	87 56	51 06		120 77	4 01	103 58	190 57	95 40	347 58	289 47	1,664 89
Repairs—Extraordin'y													
Totals	890 14	1,103 37	845 26	1,245 95	722 21	984 85	969 38	1,024 13	705 16	165 40	404 08	1,479 92	10,539 85

EXPENDITURE INCURRED WORKING AT

—	Ile au Foin.	Ile du Pads.	D'Autray.	Dorion.	—	—	—	Totals.
	$ cts.	$ cts.	cts.	$ cts.				$ cts.
Wages—Dredge	2,765 45	942 92	390 69	912 37				5 011 43
" Departmental tugs	830 72	283 25	117 36	274 06				1,505 39
Provisions—Dredge								
" Departmental tugs	677 83	231 11	95 76	223 63				1,228 33
Fuel—Dredge								
" Departmental tugs	315 15	107 46	44 54	103 97				571 12
Stores and equipment—Dredge								
" " Departmental tugs								
Contingencies—Dredge	286 79	97 78	40 51	94 61				519 69
" Departmental tugs								
Water—Dredge								
" Departmental tugs								

Pilotage and towage—Dredge	21 52	34	3 04	7 10					30 00
" " Departmental tugs									
Wharfage—Dredge									
" Departmental tugs									
Repairs—Dredge	918 74	313 25	129 80	303 10					1,664 89
" Departmental tugs									
Repairs, extraordinary—Dredge									
" " Departmental tugs									
Rental of hired tugs									
Total expenditure—Dredge	5,816 20	1,983 11	821 70	1,918 84					10,539 85
Total expenditure—Departmental tugs									
Total expenditure—Hired tugs									
Total—Complete expenditure	5,816 20	1,983 11	821 70	1,918 84					10,539 85
Cubic yards removed	28,373	10,744	4,485	8,742					52,344
Cost per cubic yard (calculated from total expenditure)	20·49c.	18·38c.	18·32c.	21·95c.					20·13c.
Cost per hour actually dredging	$9 18	$9 18	$9 18	$9 18					$9 18
Kind of material	Sand & clay	Sand & clay	Sand & clay	Clay, boulders & hardpan.					
Work commenced	May 12	Aug. 19	Sept. 24	Oct. 17					
Work completed	Aug. 15	Sept. 23	Oct. 11	Nov. 25					

DISTRIBUTION OF TIME IN HOURS.

	H. M.	% of total.	H. M.	% of total.	H. M.	% of total.	H. M.	% of total.	—	—	—	H. M.	% of total.
Lost by storms and weather	40 00	4·80	8 30	2·70	3 00	1·9	9 00	2·60				60 30	3·50
" repairs	66 00	7·90	18 30	5·80	42 30	27·10	32 00	9·30				159 00	9·60
" coaling	18 00	2·10	6 30	2·00	3 45	2·40	17 00	4·80				45 15	2·70
" watering													
" tide and current	3 00	·40										3 00	·20
" cleaning plant	20 30	2·40	12 30	3·90	3 00	1·90	9 00	2·60				45 00	2·70
" cleaning boilers	6 00	·70	7 00	2·20								13 00	·70
" inspecting boilers													
" holidays	20 00	2·40	10 00	3·10			18 00	5·30				48 00	2·90
" waiting on scows or tug													
" waiting orders													
" towing and preparing for work	7 00	·80	13 30	4·20			26 00	7·60				46 30	2·80
" moving dredge and changing cut	5 30	·60	2 30	·80			2 30	·70				10 30	·90
" short of coal or supplies													
" miscellaneous	20 30	2·40	25 00	7·80	15 15	9·50	22 30	6·50				83 15	5·00
Total lost time	206 30	24·50	104 00	32·50	67 30	43·00	136 00	39·40				514 00	31·00
Time actually dredging	633 30	75·50	216 00	67·50	89 30	57·00	209 00	60·60				1148 00	69·00
Possible dredging time	840 00	100·00	320 00	100·00	157 00	100·00	345 00	100·00				1662 00	100·00

Names of Departmental Tugs included in expenditure, dates between which employed, and localities.—Tug *Alta* in attendance all season.
Date Dredge put in commission.—April 23. *Dredge laid up for winter at* Hamilton, Ont., December 15, 1913.

QUEBEC—*Continued.*

Departmental Dredge 'No. 106,' and Plant in Attendance.

—	April.	May.	June.	July.	August.	September.	October.	November.	December.	January.	Februnry.	March.	Totals.
Material handled, c.yds		836	9,464	6,656	5,876	5,012	5,629	1,647					35,120
Kind of material		Sand, clay.	Sand, clay..	Sand.....	Sand, clay..	Sand, clay..	Sand, clay..	Sand, clay..					
Total possible dredging time		120 00	250 00	270 00	260 00	260 00	270 00	130 00					1,560 00
Hours actually dredging		41 30	218 00	202 00	204 00	180 00	217 30	73 00					1,136 00
Per hour, actually dredging		20 00	43 25	34 75	29 00	27 75	25 75	22 50					31 00

DETAILS OF EXPENDITURE.

	$ cts.	$ cts.	$ cts.	$ cts.	$ cts	$ cts	$ cts	$ cts.	$ cts	$ cts	$ cts.	$ cts	$ cts
Wages	230 66	521 45	547 29	520 00	522 39	520 00	520 00	513 66	226 52	50 81	50 00	415 95	4,638 73
Provisions	58 00	166 05	165 89	171 00	160 65	171 55	165 00	151 90	43 97			95 63	1,349 64
Fuel			372 25	8 00	176 23		207 52					176 22	940 22
Stores and equipment		262 98	50 00	630 72		2 32	6 30	26 89	2 55			298 28	1,280 04
Contingencies	22 50	3 53	13 90			16 00	22 05	6 00	75 60		9 70	383 75	553 03
Water													
Pilotage and towage			5 00			12 00							17 00
Wharfage													
Rental hired tugs													
Repairs (inc. all items charged to D.V. rep'rs)	272 97	494 57	83 66		131 20		5 70	27 07	55 14	48 29	126 71	250 35	1,495 66
Repairs, extraordinary													
Totals	584 13	1,448 58	1,237 99	1,329 72	990 47	721 87	926 57	725 52	403 78	99 10	186 41	1,620 18	10,274 32

EXPENDITURE INCURRED WORKING AT

—	Ile au Foin.	Yamaska.	Notre Dame de Pierreville.	—	—	—	—	Totnls.
Wages—Dredge	$ cts. 59 22	$ cts. 1,020 85	$ cts 3,558 66					$ cts. 4,638 73
" Departmental tugs								
Provisions—Dredge	17 22	297 02	1,035 40					1,349 64
" Departmental tugs								
Fuel—Dredge	12 00	206 91	721 31					940 22
" Departmental tugs								
Stores and equipment—Dredge	16 34	281 70	982 00					1,280 04
" Departmental tugs								
Contingencies—Dredge	7 06	121 70	424 27					553 03
" Departmental tugs								
Water—Dredge								
" Departmental tugs								

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QUEBEC—*Continued.*

Departmental Dredge 'No. 107,' and Plant in Attendance.

—	April.	May.	June.	July.	August.	September.	October.	November.	December.	January.	February	March.	Totals.
Material handled, c. yds			7,430	7,829									15,259
Kind of material			Sand & clay	Sand & clay									
Total possible dredging time			250 00	210 00									460 00
Hours actually dredging			145 00	156 00									301 00
Per hour, actually dredging.....c. yds			51·00	50·00									51·00

DETAILS OF EXPENDITURE.

	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Wages	421 17	754 36	600 96	516 45	366 29	55 00	155 66		35 62				2,905 51
Provisions	126 50	173 47	181 40	163 74	110 04	15 00	15 97		11 25				797 37
Fuel			266 00	488 18					17 65				771 83
Stores and equipment		590 89	5 55	2 02	6 90				52 07				657 43
Contingencies	3 10	11 33	8 00	1 00	11 50	3 00	79 65	8 82	102 48				228 88
Water													
Pilotage and towage													
Wharfage													
Rental hired tugs													
Repairs (inc. all items charged to D.V.rep'rs)	488 78	176 17	145 60	8 00	428 83	1,019 89	544 98	87 03	135 51				3,035 33
Repairs—Extraordin'y.													
Totals	1,039 55	1,706 54	1,207 51	1,179 39	923 56	1,092 89	796 26	95 85	354 58				8,396 35

EXPENDITURE INCURRED WORKING AT

—	Ile Aux Foin.	—	—	—	—	—	—	Totals.
	$ cts.							$ cts.
Wages—Dredge	2,905 51							2,905 51
" Departmental tugs								
Provisions—Dredge	797 37							797 37
" Departmental tugs								
Fuel—Dredge	771 83							771 83
" Departmental tugs								
Stores and equipment—Dredge	657 43							657 43
" " Departmental tugs								
Contingencies—Dredge	228 88							228 88
" Departmental tugs								
Water—Dredge								
" Departmental tugs								

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QUEBEC—*Continued.*

Departmental Dredge 'No. 108,' and Plant in Attendance.

—	April.	May.	June.	July.	August.	September.	October.	November	December.	January.	February.	March.	Totals.
Material handled, c.yds		1,284	1,688	3,391	3,336	5,962	1,041						19,702
Kind of material		Clay, sand.	Clay, sand, hardpan	Clay, sand	Clay, sand	Clay, sand	Clay, sand						
Total possible dredging time		100 00	250 00	270 00	260 00	260 00	80 00						1,220 00
Hours actually dredging		50 00	151 00	95 00	113 00	170 00	38 00						617 00
Per hour, actually dredging ....c. yds.		26 00	31 00	36 00	29 00	35 00	27 00						32 00

DETAILS OF EXPENDITURE.

	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Wages	525 67	505 00	505 00	293 22	422 09	474 17	381 13	159 50	130 00	50 00	78 00	99 03	3,622 81
Provisions	135 50	165 00	165 40	95 81	151 89	155 70	120 02	8 25				9 50	1,007 07
Fuel		8 00		188 40	184 39	454 01	8 25	236 36	85 12	116 92		8 25	1,289 70
Stores and equipment	61 42	274 75		6 62	32 20		124 75	6 00		1 30	11 05	388 09	906 18
Contingencies	60	15 75	3 00	30 57	3 00	6 00	13 50	3 07		23 80		154 96	254 25
Water													
Pilotage and towage													
Wharfage													
Rental hired tugs													
Repairs (inc. all items charged to D.V. rep'rs)	410 99	79 32	38 10	556 54	231 96	248 02	240 73	227 63	85 57	183 57	394 86	71 04	2,768 33
Repairs, extraordinary													
Totals	1,134 18	1,047 82	711 50	1,171 16	1,025 53	1,337 90	888 38	640 81	300 69	375 59	483 91	730 87	9,848 34

EXPENDITURE INCURRED WORKING AT

—	Aylmer, Que.	—	—	—	—	—	—	Totals.
	$ cts.							$ cts.
Wages—Dredge	3,622 81							3,622 81
" Departmental tugs								
Provisions—Dredge	1,007 07							1,007 07
" Departmental tugs								
Fuel—Dredge	1,289 70							1,289 70
" Departmental tugs								
Stores and equipment—Dredge	906 18							906 18
" " —Departmental tugs								
Contingencies—Dredge	254 25							254 25
" Departmental tugs								
Water—Dredge								
" Departmental tugs								

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QUEBEC—*Continued.*

Departmental Dredge 'No. 110 International,' and Plant in Attendance.

	April.	May.	June.	July.	August.	September.	October.	November.	December.	January.	February.	March.	Totals.
Material handled, c.yds.		23,566	17,261	21,630	19,026	24,660	22,305	13,061					141,869
Kind of material		Sand and clay.	Sand, hard-pan, boulder	Boulders, hardpan.	Hardpan....	Hardpan, boulders.	Hardpan, boulders.	Hardpan....					
Total possible dredging time		180 00	250 00	270 00	260 00	260 00	270 00	160 00					1,650 00
Hours actually dredging		83 30	108 30	143 00	151 00	163 30	188 30	88 00					926 00
Per hour, actually dredging.....c. yds		282 25	163 55	143 75	126 00	150 75	144 75	148 50					153 00

Details of Expenditure.

	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Wages	803 92	994 12	900 16	925 20	925 00	910 00	935 05	980 65	340 51	59 52	100 00	418 45	8,232 58
Provisions	218 50	290 65	290 10	300 00	300 00	300 00	301 20	285 00	49 35	1 45		197 99	2,534 24
Fuel			408 81	691 84		340 48	361 76	2,164 92	202 26	21 15	21 76	107 13	4,320 11
Stores and equipment		165 79	585 57	230 48		136 45	101 91	160 16	348 24	8 68	96 07	1,619 76	3,453 71
Contingencies		25 63	34 18	52	21 59	6 00		17 55	66 89	15 25		390 27	577 88
Water													
Pilotage and towage										5 00			5 00
Wharfage													
Rental hired tugs			5 00										5 00
Repairs (inc. all items charged to D.V. rep'rs)		4,573 92	3,474 14	3,322 76	425 68	949 83	178 80	144 88	41 43	608 61	338 36	2,281 89	16,340 30
Repairs, extraordinary		3,135 25	1,500 00	3,185 27								1,511 19	9,331 71
Totals	1,022 42	5,960 11	5,697 96	5,470 80	1,672 27	2,672 76	1,878 72	3,753 16	1,048 68	719 66	556 79	5,015 49	35,468 82

Expenditure Incurred Working at

	Three Rivers.	Longueuil.	—	—	—	—	—	Totals.
	$ cts.	$ cts.						$ cts.
Wages—Dredge	809 03	7,423 55						8,232 58
" Departmental tugs								
Provisions—Dredge	249 04	2,285 20						2,534 24
" Departmental tugs								
Fuel—Dredge	424 55	3,895 56						4,320 11
" Departmental tugs								
Stores and equipment—Dredge	339 40	3,114 31						3,453 71
" " Departmental tugs								
Contingencies—Dredge	56 79	521 09						577 88
" Departmental tugs								
Water—Dredge								
" Departmental tugs								

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QUEBEC—*Continued.*

Departmental Dredge 'No. 111 Lac St. Jean', and Plant in Attendance.

	April.	May.	June.	July.	August.	September.	October.	November.	December.	January.	February.	March.	Totals.
Material handled, c.yds.		183	1,818	3,942	2,772	5,563	3,715	3,034					20,527
Kind of material		Boulders.	Boulders, mud, clay	Boulders, clay, sand	Clay, sand	Clay	Clay	Clay					
Total possible dredging time		40 00	250 00	270 00	260 00	260 00	270 00	190 00					1,540 00
Hours actually dredging		34 00	135 00	142 30	77 00	153 30	91 00	84 00					717 00
Per hour actually dredging ..... c. yds		5	13·50	27·50	36	36·50	35·33	36 00					28·75

DETAILS OF EXPENDITURE.

	April.	May.	June.	July.	August.	September.	October.	November.	December.	January.	February.	March.	Totals.
	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Wages	535 25	516 82	500 00	500 00	500 00	531 25	500 00	673 63	60 00	100 00	50 00	50 00	4,516 95
Provisions		182 50	165 00	165 00	165 00	165 00	165 00	165 00					1,172 50
Fuel		251 35	50 63	575 00	395 00		25 00	169 09		166 97	15 90	807 50	2,456 44
Stores and equipment		145 56	49 43	86 75	24 08	62 08		136 87	73 08	5 25			583 10
Contingencies		12 72	26 53			12 37	30 00			17 00	11 70	14 70	125 02
Water													
Pilotage and towage		25 00											25 00
Wharfage													
Rental hired tugs				25 00									25 00
Repairs (inc. all items charged to D.V.rep'rs)		82 50	36 64	157 67	5 92	61 02	38 72		61 18				443 65
Repairs, extraordinary													
Totals	535 25	1,216 45	828 23	1,509 42	1,090 00	831 72	758 72	1,144 59	194 26	289 22	77 60	872 20	9,347 66

EXPENDITURE INCURRED WORKING AT

	St. Felicien.	Roberval, Que.						Totals.
	$ cts.	$ cts.						$ cts.
Wages—Dredge	787 47	3,729 48						4,516 95
" Departmental tugs	204 41	968 09						1,172 50
Provisions—Dredge								
" Departmental tugs	428 25	2,028 19						2,456 44
Fuel—Dredge								
" Departmental tugs	101 66	481 44						583 10
Stores and equipment—Dredge								
" " Departmental tugs	21 80	103 22						125 02
Contingencies—Dredge								
" Departmental tugs								
Water—Dredge								
" Departmental tugs								

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QUEBEC—*Continued.*

Departmental Dredge 'No. 113 Nipissing,' and Plant in Attendance.

	April.	May.	June.	July.	August.	September	October.	November.	December.	January.	February.	March.	Totals.
Material handled, c.yds		61	3,735	11,406	2,795	1,750	6,747	390					26,944
Kind of material		Loose rock.	Rock boulders, stones sawdust & clay.	Sawdust, clay silt.	Hardpan, clay boulders.	Boulders, hardpan.	Silt, clay, rock, logs boulders, sawdust.	Sawdust, slabs, clay					
Total possible dredging time		60 00	250 00	270 00	260 00	260 00	270 00	110 00					1,480 00
Hours actually dredging		19 30	129 00	193 30	108 30	129 00	118 30	13 30					711 30
Per hour, actually dredging.....c. yds.		3·00	29·00	59·50	25·50	13·50	57·00	29·00					38·00

DETAILS OF EXPENDITURE.

	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Wages	415 67	592 41	558 80	528 38	614 25	710 95	580 75	533 82	193 05	45 00	100 00	372 78	5,245 86
Provisions	121 00	138 10	179 84	168 00	180 95	170 40	227 21	98 50	31 29		19 35	76 24	1,410 88
Fuel		237 50	248 19	16 81		446 82	885 07	9 00	68 84			11 77	1,969 00
Stores and equipment	14 95	281 04	78 25	29 18		17 19	0 40		1 00		1 83	683 47	1,107 31
Contingencies		1 53	3 00	0 55	3 15	3 00	31 65	16 25	11 60			799 43	870 16
Water													
Pilotage and towage													
Wharfage													
Rental hired tugs													
Repairs (inc. all items charged to D.V.rep'rs.	173 03	264 34	211 00	119 62	49 60	412 86	81 44	77 95	217 35	36 46	353 77	825 00	2,822 42
Repairs—Extraordin'y.													
Totals	724 65	1,514 92	1,279 08	907 54	847 95	1,761 22	1,806 52	735 52	523 13	81 46	474 95	2,768 69	13,425 63

EXPENDITURE INCURRED WORKING AT

	Ottawa—Bronson's Dock, Victoria Is. Shipyard.	Lachine Canal.	Papineauville	Thurso.	St. Andrews.	Montebello.	South Nation River.	Grenville.	Totals.
	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Wages—Dredge	335 49	766 79	1,522 52	188 01	1,751 09	18 38	383 40	280 18	5,245 86
" Departmental tugs									
Provisions—Dredge	90 22	206 23	409 48	50 57	470 95	4 97	103 11	75 35	1,410 88
" Departmental tugs									
Fuel—Dredge	125 01	287 81	571 47	70 57	657 25	6 93	143 90	105 16	1,969 00
" Departmental tugs									
Stores and equipment—Dredge	70 81	161 85	321 38	39 68	369 62	3 90	80 93	59 14	1,107 31
" " Departmental tugs									
Contingencies—Dredge	55 64	127 19	252 55	31 19	290 46	3 07	63 59	46 47	870 16
" Departmental tugs									

Water—Dredge									
" Departmental tugs									
Pilotage and towage—Dredge									
" " Departmental tugs									
Wharfage—Dredge									
" Departmental tugs									
Repairs—Dredge	180 49	412 55	819 15	101 15	942 13	9 93	206 28	150 74	2,822 42
" Departmental tugs									
Repairs, extraordinary—Dredge									
" " Departmental tugs									
Rental of hired tugs									
Total expenditure—Dredge	858 56	1,962 42	3,896 55	481 17	4,481 50	47 18	981 21	717 04	13,425 63
Total expenditure—Departmental tugs									
Total expenditure—Hired tugs									
Total—Complete expenditure	858 56	1,962 42	3,896 55	481 17	4,481 50	47 18	981 21	717 04	13,425 63
Cubic yards removed	1,231	2,487	11,973	1,443	4,545	156	3,822	1,911	26,944
Cost per cubic yard (calculated from total expenditure)	69·74c.	78·89c.	32·58c.	33·34c.	98·60c.	30·24c.	25·58c.	37·52c.	49·82c.
Cost per hour actually dredging	$18 87	$18 87	$18 87	$18 87	$18 87	$18 87	$18 87	$18 87	$18 87
Kind of material	Loose rock, rock, sawdust, slabs.	Rock, boulders, stones.	Sawdust, clay silt.	Sand, clay	Hardpan, boulders, clay.	Silt, slabs, logs.	Clay	Silt, logs, boulders, clay.	
Work commenced	May 26–Oct. 16 Nov. 12.	June 7.	June 26–Oct. 13 Nov. 5.	July 28.	August 5.	October 11.	October 24.	October 4.	
Work completed	May 28–Oct. 21 Nov. 13.	June 19	July 25–Oct. 13 Nov. 6.	July 31.	Sept. 29.	October 11.	October 31.	October 9.	

DISTRIBUTION OF TIME IN HOURS.

	H. M.	% of total.	H. M.	% of total.	H. M.	% of total.	H. M.	% of total.	H. M.	% of total.	H. M.	% of total.	H. M.	% of total.	H. M.	% of total.	H. M.	% of total.
Lost by storms and weather			3 00	1·90	2 00	0·60			5 30	1·10			6 30	7·20			17 00	1·20
" repairs	7 00	3·50	13 00	8·10	22 30	6·30			73 30	14·8			2 00	2·20	2 00	2·20	120 00	8·10
" coaling	1 00	0·50			7 00	1·90			4 00	0·80							12 00	0·80
" watering																		
" tide and current																		
" cleaning plant					2 00	0·60											2 00	0·10
" cleaning boilers					9 00	2·50			14 00	2·70							23 00	1·60
" inspecting boilers																		
" holidays	10 00	5·00			10 00	2·80			10 00	1·90							30 00	2·00
" waiting on scows or tug	16 00	8·00	11 00	6·80			1 00	2·00	18 30	3·60			5 00	5·60			51 30	3·50
" waiting orders											5 00	25·00	18 00	20·00			23 00	1·60
" towing and preparing for work	91 00	45·50	10 00	6·30	90 30	25·20	13 00	26·00	33 00	6·50	12 30	62·50	2 00	2·20	40 00	44·50	292 00	19·60
" moving dredge and changing cut			4 00	2·50	4 30	1·20	1 00	2·00	28 30	5·80			1 00	1·00	5 00	5·60	44 00	2·90
" short of coal or supplies									10 00	1·90							10 00	0·70
" miscellaneous	29 30	14·80	15 00	9·40	6 00	1·70	9 30	19·00	75 30	14·80			3 30	3·90	5 00	5·60	144 00	9·80
Total lost time	154 30	77·30	56 00	35·00	153 30	42 80	24 30	49·00	272 30	53·5	17 30	87·50	38 00	42·10	52 00	57·90	768 30	51·90
Time actually dredging	45 30	22·70	104 00	65·00	206 30	57·20	25 30	51·00	237 30	46·50	2 30	12·50	52 00	57·90	38 00	42·10	711 30	48·10
Possible dredging time	200 00	100·00	160 00	100·00	360 00	100·00	50 00	100·00	510 00	100·00	20 00	100·00	90 00	100·00	90 00	100·00	1480 00	100·00

Names of Departmental Tugs included in Expenditure, dates between which employed, and localities.—Tug *Cliffside* in attendance all season. Tug *Delisle* June 6 to June 14, Lachine Canal. Tug *Maggie K.*

Date Dredge put in commission May 23. *Dredge laid up for winter at* Ottawa, December 15.

QUEBEC—*Continued.*

Departmental Dredge 'No. 115 Ottawa,' and Plant in Attendance.

	April	May	June.	July.	August	September.	October.	November.	December.	January.	February.	March.	Totals.
Material handled, c. yds.		16,524	15,134	7,301	16,803	17,597	12,129						85,488
Kind of material		Sand, clay, gravel, stones, boulders.	Clay, sand, gravel, stones.	Sand, clay, hardpan, boulders.	Sand, clay, boulders.	Sand, clay, gravel, boulders.	Sand, clay, gravel.						
Total possible dredging time		240 00	250 00	270 00	260 00	260 00	220 00						1,500 00
Hours actually dredging		120 00	123 30	86 00	108 00	112 00	100 00						649 30
Per hour actually dredging c. yds.		137 50	123 00	85 00	155 50	157 00	121 00						132 00

DETAILS OF EXPENDITURE.

	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Wages	983 96	1,070 27	1,129 73	920 00	970 79	1,012 49	993 33	440 90	478 67	115 34	100 00	427 09	8,651 57
Provisions	301 50	343 39	366 40	300 00	336 94	330 00	335 70	38 50	177 68			60 50	2,590 61
Fuel		2,025 93	69 75	172 57	693 73		1,078 76			48 42	58 28	1,415 32	5,562 76
Stores and equipment	41 95	56 11	297 25	696 78	167 73	357 05	42 99		368 40	102 60		687 35	2,818 21
Contingencies	9 00	13 25	22 55	36 05	49 80			66 85	147 45	11 00	8 85	368 04	732 84
Water					66 80		73 00						139 80
Pilotage and towage			11 25										11 25
Wharfage													
Rental hired tugs					20 00				15 00				35 00
Repairs (inc. all items charged to D.V.rep'rs)		1,037 91	20 86	1,641 35	36 74	39 66	1,044 51	7 92	548 18	233 86	1,230 10	1,026 30	6,867 39
Repairs, extraordinary		600 00		1,366 40			722 20				617 95	720 69	4,036 24
Totals	1,336 41	4,546 86	1,917 79	3,766 75	2,342 53	1,739 20	3,568 29	563 17	1,735 38	511 22	1,397 23	3,084 60	27,409 43

EXPENDITURE INCURRED WORKING AT

	Three Rivers.	Longueuil.	Cap de la Madeleine	Baie St. Paul.	Murray Bay.			Totals.
	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.			$ cts.
Wages—Dredge	1,205 49	2,384 34	466 21	865 83	3,729 70			8,651 57
" Departmental tugs								
Provisions—Dredge	360 97	713 96	139 60	259 26	1,116 82			2,590 61
" Departmental tugs								
Fuel—Dredge	775 10	1,533 08	299 76	556 71	2,398 11			5,562 76
" Departmental tugs								
Stores and equipment—Dredge	392 68	776 09	151 87	282 04	1,214 93			2,818 21
" " Departmental tugs								
Contingencies—Dredge	102 11	201 97	39 40	73 34	315 93			732 84
" Departmental tugs								

Water—Dredge	19 48	38 53	7 53	13 99	60 27			139 80
" Departmental tugs								
Pilotage and towage—Dredge		11 25						11 25
" " Departmental tugs								
Wharfage—Dredge								
" Departmental tugs								
Repairs, ordinary—Dredge	394 49	780 25	152 57	283 33	1,220 51			2,831 15
" " Departmental tugs								
Repairs, extraordinary Dredge	562 40	1,112 38	217 50	403 93	1,740 03			4,036 24
" " Departmental tugs								
Rental of hired tugs	20 00				15 00			35 00
Total expenditure—Dredge	3,812 72	7,552 45	1,474 53	2,738 43	11,796 30			27,374 43
Total expenditure—Departmental tugs								
Total expenditure—Hired tugs	20 00				15 00			35 00
Total—Complete expenditure	3,832 72	7,552 45	1,474 53	2,738 43	11,811 30			27,409 43
Cubic yards removed	10,901	22,823	4,716	3,815	43,233			85,488
Cost per cubic yard (calculated from total expenditure)	35·11 cts	33·09 cts.	31·26 cts.	71·91 cts.	27·32 cts.			32·06 cts.
Cost per hour actually dredging	$42·29	$42·19	$42·13	$42·20	$42·18			$42·20
Kind of material	Sand, clay and old piers.	Boulders, gravel stones.	Clay, sand	Clay, hardpan, boulders.	Sand, clay, gravel, boulders.			
Work commenced	May 5, June 20, Oct. 14	May 14	June 16	June 30	July 28			
Work completed	May 8, June 21, Oct. 25	June 13	June 19	July 25	October 8			

DISTRIBUTION OF TIME IN HOURS.

	H. M.	% of total.	H. M.	% of total.	H. M	% of total.	H. M	% of total.	H. M	% of total.			H. M	% of total.
Lost by storms and weather	15 00	6·50	2 00	0·7			10·00	3·50	85 00	13·30			112 00	7·50
" repairs	46 00	20·00	36 00	12·40			145 00	50·00	170 00	26·60			397 00	26·50
" coaling	4 00	1·70	9 00	3·10			4 00	1·40	10 00	1·50			27 00	1·80
" watering									7 00	1·10			7 00	0·50
" tide and current							17 00	5·80	14 00	2·20			31 00	2·00
" cleaning plant														
" cleaning boilers							10 00	3·50	10 00	1·60			20 00	1·30
" inspecting boilers														
" holidays														
" waiting on scows or tug	7 00	3·00	12 00	4·20					8 30	1·30			27 30	1·80
" waiting orders	25 00	10·90			1 00	2·00	10 00	3·50					36 00	2·40
" towing and preparing for work	35 30	15·40	20 00	6·90	13 00	26·00	17 00	5·80	17 30	2·70			103 00	6·90
" moving dredge and changing cut			16 00	5·50	1 00	2·00			6 00	0·90			23 00	1·50
" short of coal or supplies									10 00	1·60			10 00	0·70
" miscellaneous	7 00	3·00	16 00	5·60			12 00	4·10	22 00	3·40			57 00	3·80
Total lost time	139 30	60·50	111 00	38·30	15 00	30·00	225 00	77·60	360 00	56·30			850 30	56·70
Time actually dredging	90 30	39·50	179 00	61·70	35 00	70·00	65 00	22·40	280 00	43·70			649 30	43·30
Possible dredging time	230 00	100·00	290 00	100·00	50 00	100·00	290 00	100·00	640 00	100·00			1,500 00	100·00

Names of Departmental Tugs included in expenditure, dates between which employed, and localities:—Tug *Storm King*, May 5 to June 28, at Three Rivers, Longueuil, Cap de la Madeleine. Tug *Monitor*, June 30 to October 25, Baie St. Paul, Murray Bay, Three Rivers.

Names of Rented Tugs included in expenditure, dates between which employed, and localities:—Str *Mekinac*, June 20 and 21, at Three Rivers; hoisting derrick at Murray Bay.

Date Dredge put in commission—April 29, 1913. *Dredge laid up for winter at* Montreal, Que., December 5, 1913.

QUEBEC—*Continued.*

Departmental Dredge 'Progress No. 116,' and Plant in Attendance.

	April.	May.	June.	July.	August.	September.	October.	November.	December.	January.	February.	March.	Totals.
Material handled, c.yds.		11,452	20,650	19,430	24,350	21,350	16,850	14,800					128,882
Kind of material		Clay, boulders	Hardpan, Quick sand, clay, sand	Sand, clay.	Sand, clay.	Sand, clay.	Handpan, sand, clay, gravel.	Boulders, hardpan					
Total possible dredging time		240 00	250 00	270 00	260 00	263 00	270 00	240 00					1,793 00
Hours actually dredging		78 00	172 30	119 45	136 30	132 00	135 00	155 30					929 15
Per hour actually dredging.....c. yds		146·75	119·50	162·25	178·50	161·75	124·75	95·25					138·75

Details of Expenditure.

	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Wages	1,040 00	1,073 97	1,064 50	1,253 37	1,246 09	1,334 17	1,141 45	1,505 16	526 56	50 81	50 00	392 41	10,678 49
Provisions	268 70	331 56	359 50	363 50	373 06	412 60	343 27	399 05	124 83			75 63	3,051 70
Fuel		155 10	198 06	73 28	457 62	821 39	813 85	1,240 17	1,220 24			733 91	5,713 62
Stores and equipment		77 60	41 61	22 36	250 75	561 72	87 98	171 28	112 14	109 73	27 29	677 34	2,140 10
Contingencies	34 80	10 60	25 90		52 30	16 21	14 00	19 90	187 08			411 95	802 74
Water					76 45	96 95	102 90						276 30
Pilotage and towage							15 00			20 00			35 00
Wharfage													
Rental hired tugs			10 00	605 00									615 00
Repairs (inc. all items charged to D.V.rep'rs)	151 40	3,418 30	561 72	1,996 05	656 15	423 81	74 21	1,283 94	1,679 08	163 14	223 07	191 21	10,822 08
Repairs—Extraordin'y		2,142 30		875 00				1,200 00					4,217 30
Totals	1,494 90	5,067 13	2,261 29	4,313 86	3,112 42	3,666 85	2,592 66	4,619 50	3,849 93	343 68	300 36	2,512 45	34,135 03

Expenditure Incurred Working at

	Three Rivers.	Berthier en bas.	Murray Bay.	Rimouski.	Cap de Madeleine.	Longueuil.	—	Totals.
	$ cts.	$ cts.	$ cts.	$ cts.	$ cts	$ cts.		$ cts.
Wages—Dredge	1,114 67	1,597 32	695 24	4,231 76	815 90	2,223 60		10,678 49
" Departmental tugs								
Provisions—Dredge	318 55	456 48	198 69	1,209 35	233 17	635 46		3,051 70
" Departmental tugs								
Fuel—Dredge	596 43	854 66	371 99	2,264 23	436 55	1,189 76		5,713 62
" Departmental tugs								
Stores and equipment—Dredge	223 40	320 12	139 33	848 09	163 52	445 64		2,140 10
" " Departmental tugs								
Contingencies—Dredge	83 79	120 08	52 26	318 12	61 33	167 16		802 74
" Departmental tugs								
Water—Dredge	28 84	41 33	17 99	109 49	21 11	57 54		276 30
" Departmental tugs								
Pilotage and towage—Dredge	3 65	5 24	2 28	13 87	2 67	7 29		35 00

" " Departmental tugs								
Wharfage—Dredge								
" Departmental tugs								
Repairs, ordinary—Dredge	689 45	987 96	430 01	2,617 39	504 64	1,375 33		6,604 78
" " Departmental tugs								
Repairs, extraordinary—Dredge	440 22	630 84	274 57	1,671 26	322 23	878 18		4,217 30
" " Departmental tugs								
Rental of hired tugs	605 00	10 00						615 00
Total expenditure—Dredge	3,499 00	5,014 03	2,182 36	13,283 56	2,561 12	6,979 96		33,520 03
Total expenditure—Departmental tugs								
Total expenditure—hired tugs	605 00	10 00						615 00
Total—Complete expenditure	4,104 00	5,024 03	2,182 36	13,283 56	2,561 12	6,979 96		34,135 03
Cubic yards removed	14,602	16,500	6,730	63,150	9,500	18,400		128,882
Cost per cu. yard (calculated from total expenditure)	28·10 cts.	30·44 cts.	32·42 cts.	21·03 cts.	26·95 cts.	37·93 cts.		26·49 cts.
Cost per hour actually dredging	$42·31	$36·14	$36·07	$36·07	$36·07	$36·07		$36·73
Kind of material	Clay & boulders	Clay, quicksand hardpan, sand	Hardpan, clay and sand.	Hardpan, clay and sand.	Clay	Hardpan, gravel and boulders.		
Work commenced	May 5, Sept. 29	May 28	June 23	July 11	Oct. 6	Oct. 18		
Work completed	May 21, Oct. 4	June 21	July 2	Sept. 19	Oct. 14	Nov. 28		

DISTRIBUTION OF TIME IN HOURS.

	H. M.	% of total.	H. M.	% of total.	H. M.	% of total.	H. M.	% of total.	H. M.	% of total.	H. M.	% of total.	—	H. M.	% of total.
Lost by storms and weather	2 30	0·90	44 00	16·3			109 00	15·50			5 00	1·20		160 30	8·90
" repairs	1 00	0·40	2·00	0·70	0 30	0·60	100 00	14·30	2 00	2·50	24 00	6·20		129 30	7·20
" coaling	9 00	3·30	7 00	2·60			11 00	1·60	2 00	2·50	3 00	0·7		32 00	1·80
" watering															
" tide and current	3 30	1·30	3 00	1·10	9 30	11·60	1 00				1 00	0·30		18 00	1·00
" cleaning plant			1 00	0·30							2 00	0·50		3 00	0·20
" cleaning boilers															
" inspecting boilers															
" holidays											10 00	2·50		10 00	0·60
" waiting on scows or tug	62 00	23·00					19 45	2·80			97 00	25·00		178 45	10·00
" waiting orders			30 00	11·10							12 00	3·10		42 00	2·30
" towing and preparing for work	83 00	30·80	20 00	7·70	8 00	9·80	71 00	10·10	3 00	3·70	15 00	3·80		200 00	11·10
" moving dredge and changing cut	11 00	4·10	9 00	3·30					1 00	1·30	5 00	1·20		26 00	1·40
" short of coal or supplies															
" fog							14 30	2·10						14 30	0·80
" miscellaneous	1 00	0·40	15 00	5·50	3 30	4·3	6 30	0·90	1 00	1·30	22 30	5·80		49 30	2·70
Total lost time	173 00	64·20	131 00	48·60	21 30	26·30	332 45	47·30	9 00	11·30	196 30	50·30		863 45	48·00
Time actually dredging	97 00	35·80	139 00	51·40	60 30	73·70	368 15	52·70	71 00	88·70	193 30	49·70		929 15	52·00
Possible dredging time	270 00	100·00	270 00	100 00	82 00	100 00	701 00	100·00	80 00	100·00	390 00	100·00		1,793 00	100·00

Names of Departmental Tugs included in expenditure, dates between which employed, and localities:—Tug *Monitor*, May 5 to July 28, Three Rivers and Berthier en bas; November 3 to November 28, Longueuil, Que. Steamer *Speedy*, June 22, towing tug *Storm King*, June 30 to October 14 at Murray Bay, Rimouski, Three Rivers and Cap Madeleine. Tug *Delisle*, October 20 to November 22, at Longueuil.

Names of Rented Tugs included in expenditure, dates between which employed, and localities:—Tug *M. E. Hackett*, May 24; Tug *Lucina*, at Three Rivers, May 16 to 22

Date Dredge put in commission—April 23. *Dredge laid up for winter at* Montreal, December 20, 1913.

Murray Bay private work.

QUEBEC—*Continued.*

Departmental Dredge 'Richelieu No. 119,' and Plant in Attendance.

—	April.	May.	June.	July.	August.	September.	October.	November.	December.	January.	February.	March.	Totals.
Material handled, c.yds.	.....	3,171	7,063	10,668	8,788	4,778	8,956	5,341	.....	.....	.....	.....	48,765
Kind of material	.....	Clay, boulders.	Clay, boulders.	Clay, boulders, sand.	Sand.....	Clay, sand stones.	Clay, sand, stones.	Clay, sand, stones.	.....	.....	.....	.....	.....
Total possible dredging time	.....	140 00	250 00	270 00	260 00	260 00	264 30	192 30	.....	.....	.....	.....	1,637 00
Hours actually dredging	.....	98 00	158 00	230 00	232 00	130 00	211 30	132 30	.....	.....	.....	.....	1,192 00
Per hour, actually dredging.....c. yds.	.....	32 ·50	44 ·75	46 ·50	37 ·75	36 ·75	42 ·25	40 ·75	.....	.....	.....	.....	40·45

DETAILS OF EXPENDITURE.

	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Wages	592 00	522 55	510 00	510 00	510 00	510 00	510 00	584 24	131 61	79 03	28 57	252 42	4,740 42
Provisions	133 00	163 20	168 28	170 80	168 00	165 70	186 50	165 00	14 52	.....	.....	58 50	1,393 30
Fuel	.....	50 19	735 81	199 27	.....	172 24	75 94	173 48	281 64	.....	.....	.....	1,688 57
Stores and equipment	36 77	220 11	12 62	.....	.....	.....	.....	.....	89 05	.....	.....	357 42	715 97
Contingencies	.....	21 46	7 95	11 75	3 50	12 25	.....	6 00	75 00	.....	.....	320 44	458 35
Water	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Pilotage and towage	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Wharfage	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Rental hired tugs	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Repairs (inc. all items charged to D.V.rep'rs.	56 87	57 60	38 40	152 58	268 69	213 61	664 75	23 95	374 92	99 04	100 07	201 44	2,251 92
Repairs—Extraordin'y	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals	818 64	1,035 19	1,472 78	1,044 40	950 19	1,073 80	1,437 19	952 76	966 74	178 07	128 64	1,190 22	1,248 53

EXPENDITURE INCURRED WORKING AT

—	St. Antoine.	Ile au Foin.	Iberville.	—	—	—	—	Totals.
Wages—Dredge	$ cts. 1,411 78	$ cts. 1,714 03	$ cts. 1,614 61	.....	.....	.....	.....	$ cts. 4,740 42
" Departmental tugs								
Provisions—Dredge	414 95	503 78	474 57	.....	.....	.....	.....	1,393 30
" Departmental tugs								
Fuel—Dredge	502 89	610 55	575 13	.....	.....	.....	.....	1,688 57
" Departmental tugs								
Stores and equipment—Dredge	213 23	258 88	243 86	.....	.....	.....	.....	715 97
" " Departmental tugs								
Contingencies—Dredge	136 50	165 73	156 12	.....	.....	.....	.....	458 35
" Departmental tugs								
Water—Dredge	.....	.....	.....	.....	.....	.....	.....	.....
" Departmental tugs	.....	.....	.....	.....	.....	.....	.....	.....

Pilotage and towage—Dredge									
" " Departmental tugs									
Wharfage—Dredge									
" Departmental tugs									
Repairs—Dredge	670 07	814 24	767 01						2,251 92
" Departmental tugs									
Repairs, extraordinary—Dredge									
" " Departmental tugs									
Rental of hired tugs									
Total expenditure—Dredge	3,350 02	4,067 21	3,831 30						11,248 53
Total expenditure—Departmental tugs									
Total expenditure—Hired tugs									
Total—Complete expenditure	3,350 02	4,067 21	3,831 30						11,248 53
Cubic yards removed	15,138	17,401	16,226						48,765
Cost per cubic yard (calculated from total expenditure)	22·14c.	23·37c.	23·55c.						23·07c.
Cost per hour actually dredging	$9 43	$9 43	$9 43						$9 43
Kind of material	Clay & boulders	Sand	Sand, clay, stones.						
Work commenced	May 16.	July 16.	Sept. 23.						
Work completed	July 14.	Sept. 10.	Nov. 25.						

DISTRIBUTION OF TIME IN HOURS.

	H. M.	% of total.	H. M.	% of total.	H. M.	% of total.	—	—	—	—	H. M.	% of total.
Lost by storms and weather	10 00	2·00	5 00	1·00	25 00	4·00					40 00	2·50
" repairs	98 00	19·20	23 00	4·50	97 30	15·10					218 30	13·30
" coaling	3 00	0·60	5 00	1·00	3 00	0·50					11 00	0·60
" watering												
" tide and current												
" cleaning plant	3 00	0·60	7 00	1·40	4 00	0·60					14 00	0·80
" cleaning boilers			5 00	1·00							5 00	0·30
" inspecting boilers												
" holidays	20 00	3·90	10 00	2·00	19 00	3·40					49 00	3·00
" waiting on scows or tug												
" waiting orders												
" towing and preparing for work	7 00	1·30	10 00	2·00	64 00	10·30					81 00	4·90
" moving dredge and changing cut	2 00	0·40	4 00	0·80	8 30	1·40					14 30	0·90
" short of coal or supplies	10 00	2·00									10 00	0·60
" miscellaneous	2 00	0·40									2 00	0·10
Total lost time	155 00	30·40	69 00	13·70	221 00	35·30					445 00	27·20
Time actually dredging	355 00	69·60	431 00	86·30	406 00	64·70					1,192 00	72·80
Possible dredging time	510 00	100·00	500 00	100·00	627 00	100·00					1,637 00	100·00

Names of Departmental Tugs included in expenditure, dates between which employed, and localities.—Tug *Ottawa* in attendance all season.
Date Dredge put in commission.—May 6. *Dredge laid up for winter at* Chambly, Que., December 18, 1913.

QUEBEC—*Continued*

Departmental Dredge 'St. Louis No. 121,' and Plant in Attendance.

	April.	May.	June.	July.	August.	September.	October.	November.	December.	January.	February.	March.	Totals.
Material handled, c.yds	411	7,301	8,693	6,523	3,492	7,520	6,180	975					41,095
Kind of material	Sand	Sand	Clay	Clay	Clay	Clay, sand	Sand	Sand, clay hard pan boulders.					
Total possible dredging time	20 00	270 00	250 00	270 00	260 00	260 00	270 00	190 00					1,790 00
Hours actually dredging	20 00	222 00	227 00	196 30	132 00	217 00	192 00	48 00					1,254 30
Per hour, actually dredging.....c. yds.	20·50	32·75	38·25	33·25	26·25	34·50	32·55	20·50					40·75

DETAILS OF EXPENDITURE.

	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Wages	386 83	490 00	495 00	492 74	505 00	541 13	544 30	505 00	261 84		50 00	434 00	4,705 84
Provisions	141 00	165 00	167 20	165 00	178 00	168 50	175 20	172 50	42 49			105 38	1,480 27
Fuel	8 50	227 72	195 78		189 11		396 78		33 75		8 00	234 25	1,293 89
Stores and equipment	65 96	2 20	57 43			87 26	0 90		59 83			265 67	539 25
Contingencies	29 80	5 80	3 00		5 10	13 60	27 40	3 50	51 50		14 70	381 94	536 34
Water													
Pilotage and towage													
Wharfage													
Rental hired tugs													
Repairs (inc. all items charged to D.V.rep'rs)	2 50		59 40	51 58	14 03	86 97	438 85	426 50	541 62	147 10	910 11	430 15	3,108 81
Repairs—Extraordinary													
Totals	634 59	890 72	977 81	709 32	891 24	897 46	1,583 43	1,107 50	991 03	147 10	982 81	1,851 39	11,664 40

EXPENDITURE INCURRED WORKING AT

	Ile aux Castor.	St. Roch.	Abenakis Sp'ngs	St. Francis Riv.	Longueuil.			Totals.
Wages—Dredge	$ cts. 907 78	$ cts. 1,232 25	$ cts. 926 54	$ cts 1,519 23	$ cts. 120 01			$ cts. 4,705 84
" Departmental tugs								
Provisions—Dredge	285 56	387 62	291 46	477 87	37 76			1,480 27
" Departmental tugs								
Fuel—Dredge	249 60	338 81	254 76	417 72	33 00			1,293 89
" Departmental tugs								
Stores and equipment—Dredge	104 02	141 21	106 17	174 09	13 76			539 25
" " Departmental tugs								
Contingencies—Dredge	103 47	140 14	105 60	173 15	13 68			536 34
" Departmental tugs								
Water—Dredge								
" Departmental tugs								

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QUEBEC—*Continued.*

Departmental Dredge 'St. Maurice No. 122,' and Plant in Attendance.

	April.	May.	June.	July.	August.	September.	October.	November.	December.	January.	February.	March.	Totals.
Material handled, c.yds.				6,298	10,972	10,221	6,990						34,481
Kind of material				Gravel	Clay and sand.	Gravel and clay.	Gravel and sand.						
Total possible dredging time				220 00	260 00	260 00	270 00						1,010 00
Hours actually dredging				100 00	201 00	188 00	152 00						641 00
Per hour, actually dredging .... c. yds.				62·98	54·58	54·32	45·98						

DETAILS OF EXPENDITURE.

	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Wages	743 33	952 70	811 15	682 42	703 62	671 71	999 24	481 00	601 90	100 00	100 00	100 00	6,947 07
Provisions		222 75	180 00	191 00	202 00	192 50	202 00	60 00					1,250 25
Fuel	116 38	88 59	158 65	366 97	219 07	252 47	342 95	126 83					1,671 91
Stores and equipment		394 50	120 00	28 00	16 09	22 90	40 56	56 11				21 00	708 16
Contingencies	36 15	33 05	25 58	12 93	24 20	17 00	22 25	21 61	3 85				196 62
Water													
Pilotage and towage			210 00										210 00
Wharfage			15 00										15 00
Rental hired tugs													
Repair (inc. all items charged to D.V.rep'rs)	200 65	256 81	274 29	67 90	182 63	39 77	180 86		34 16				1,237 07
Repairs—Extraordina'y													
Totals	1,096 51	1,948 40	1,803 67	1,349 22	1,347 61	1,196 35	1,787 86	745 55	639 91	100 00	100 00	121 00	12,236 08

EXPENDITURE INCURRED WORKING AT

	St. Rock de Mekinao.	Pte. A Trudel.	Ricard Crossing.	Pte. Madeleine.	—	—	—	Totals.
	$ cts.	$ cts.	$ cts.	$ cts.				$ cts.
Wages—Dredge	749 81	316 84	494 97	2,346 01				3,907 63
" Departmental tugs	488 00	244 00	244 00	2,063 44				3,039 44
Provisions—Dredge	210 00	116 09	138 06	365 80				830 24
" Departmental tugs	120 00	60 00	60 00	180 00				420 00
Fuel—Dredge	418 25	175 33	343 95	551 17				1,488 70
" Departmental tugs	66 83			116 38				183 21
Stores and equipment—Dredge	36 07	15 95	38 16	423 97				514 15
" " Departmental tugs				194 01				194 01
Contingencies—Dredge	27 13	15 00	12 75	54 54				109 42
" Departmental tugs	10 00	2 00	9 50	65 70				87 20
Water—Dredge								
" Departmental tugs								

Pilotage and towage—Dredge	210 00							210 00
" " Departmental tugs								
Wharfage—Dredge				15 00				15 00
" Departmental tugs								
Repairs—Dredge	164 85	39 77	77 20	518 61				800 43
" Departmental tugs	59 06		95 30	282 28				436 64
Repairs, extraordinary—Dredge								
" " Departmental tugs								
Rental of hired tugs								
Total expenditure—Dredge	1,816 41	678 98	1,105 09	4,275 10				7,875 58
Total expenditure—Departmental tugs	743 89	306 00	408 80	2,901 81				4,360 50
Total expenditure—Hired tugs								
Total—Complete expenditure	2,560 30	984 98	1,513 89	7,176 91				12,236 08
Cubic yards removed	19,960	8,674	8,271	573				34,481
Cost per cubic yard (calculated from total expenditure)	15 cts.	11 cts.	18 cts.					16 cts.
Cost per hour actually dredging	$8·17	$7·52	$8·81					$19·09
Kind of material	Gravel, clay and sand.	Sand and gravel	Gravel	Sand				
Work commenced	July 7	Aug. 28	Sept. 22	Oct. 24				
Work completed	Aug. 27	Sept. 19	Oct. 22	Oct. 25				

DISTRIBUTION OF TIME IN HOURS.

	H. M.	% of total.	H. M.	% of total.	H. M.	% of total.	H. M.	% of total.	H. M.	—	—	H. M.	% of total.
Lost by storms and weather	10 00	2·00			20 00	8·00						30 00	2·90
" repairs	96 00	20·00	33 00	18·40	16 00	6·20						145 00	14·30
" coaling													
" watering													
" tide and current													
" cleaning plant	21 00	4·40	9 00	5·00	12 00	4·60	3 00	3·30				45 00	4·40
" cleaning boilers	5 00	1·00										5 00	0·40
" inspecting boilers													
" holidays													
" waiting on scows or tug					10 00	3·90						10 00	0·90
" waiting orders													
" towing and preparing for work	22 00	4·60			10 00	3·90						32 00	3·10
" moving dredge and changing cut	22 00	4·60	7 00	3·90	20 00	8·00						49 00	4·80
" short of coal or supplies													
" miscellaneous	3 00	0·70					50 00	55·50				53 00	5·20
Total lost time	179 00	37·30	49 00	27·20	88 00	33·88	53 00	58·80				369 00	36·50
Time actually dredging	301 00	62·70	131 00	72·80	172 00	66·20	37 00	41·20				641 00	63·50
Possible dredging time	480 00	100·00	180 00	100·00	260·00	100·00	90 00	100·00				1,010 00	100·00

Names of Departmental Tugs included in expenditure, dates between which employed, and localities:—Annette.
Names of Rented Tugs included in expenditure, dates between which employed, and localities:—Radnor, June 25 to July 1, 1913.
Date Dredge put in commission—July 7, 1913. *Dredge laid up for winter at* Pointe Madeleine, October 25, 1913.

QUEBEC—*Continued.*

Departmental Dredge 'No. 123,' and Plant in Attendance.

—	April.	May.	June.	July.	August.	September.	October.	November.	December.	January.	February.	March.	Totals.
Material handled, c.yds					4,283	16,271	21,673	9,664					51,891
Kind of material					Hardpan, Sand, Boulders.	Hardpan, Clay, Boulders.	Hardpan, Boulders.	Hardpan, Boulders.					
Total possible dredging time					110 00	260 00	270 00	150 00					790 00
Hours actually dredging					75 00	181 00	236 00	109 00					601 00
Per hour, actually dredging.....c. yds.					57·00	90·00	92·00	88·00					86·00

DETAILS OF EXPENDITURE.

	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Wages					394 66	584 67	777 19	650 64	252 82	65 61	50 00	761 15	3,536 74
Provisions					112 58	180 00	197 00	195 00	56 02			184 50	925 10
Fuel				248 19		545 32	543 30		374 62			250 53	1,961 96
Stores and equipment						5 20	10 00	171 40	5 30			698 92	890 88
Contingencies						26 60	6 85	4 43	59 71	13 80	3 80	406 92	522 11
Water													
Pilotage and towage						12 00							12 00
Wharfage													
Rental hired tugs													
Repairs (inc. all items charged to D.V. rep'rs)								249 59	1,228 54	80 60	423 39	946 09	2,931 21
Repairs, extraordinary													
Totals				248 19	507 24	1,353 79	1,534 34	1,271 06	1,977 07	166 01	477 19	3,248 11	10,783 00

EXPENDITURE INCURRED WORKING AT

—	St. Pierre les Becquets.	—	—	—	—	—	—	Totals.
	$ cts.							$ cts.
Wages—Dredge	3,536 74							3,536 71
" Departmental tugs								
Provisions—Dredge	925 10							925 10
" Departmental tugs								
Fuel—Dredge	1,961 96							1,961 96
" Departmental tugs								
Stores and equipment—Dredge	890 88							890 88
" " Departmental tugs								
Contingencies—Dredge	522 11							522 11
" Departmental tugs								

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QUEBEC—*Concluded.*

Departmental Stone Lifter and Plant in Attendance.

	April.	May.	June.	July.	August.	September.	October.	November	December.	January.	February.	March.	Totals.
Material handled, c.yds					222	237	194						653
Kind of material					Boulders....	Boulders..	Boulders..						
Total possible dredging time				130 00	255 00	255 00	220 00						860 00
Hours actually dredging					174 30	197 00	162 00						533 30
Per hour, actually dredging c. yds.					1·30	1·20	1·20						

DETAILS OF EXPENDITURE

	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Wages	50 00	50 00	89 50	604 50	568 67	568 67	564 00	50 00	50 00	50 00	50 00	50 00	2,745 34
Provisions				4 00	203 50	210 00	187 50						605 00
Fuel													
Stores and equipment			12 85	394 88	283 96	24 30	37 50	1 25					754 74
Contingencies			8 00	4 00	20 80	65 90	24 48	15 20					138 38
Water													
Pilotage and towage					70 00								70 00
Wharfage													
Rental hired tugs													
Repairs (inc. all items charged to D.V.rep'rs)				105 26	32 45	13 20	20 70						171 61
Repairs—Extraordin'y													
Totals	50 00	50 00	110 35	1,112 64	1,179 38	882 07	834 18	66 45	50 00	50 00	50 00	50 00	4,485 07

EXPENDITURE INCURRED WORKING AT

	Rap. Manigance	—	—	—	—	—	—	Totals.
Wages—Dredge	$ cts. 2,745 34							$ cts. 2,745 34
" Departmental tugs								
Provisions—Dredge	605 00							605 00
" Departmental tugs								
Fuel—Dredge								
" Departmental tugs								
Stores and equipment—Dredge	754 74							754 74
" " Departmental tugs								
Contingencies—Dredge	138 38							138 38
" Departmental tugs								
Water—Dredge								
" Departmental tugs								

Pilotage and towage—Dredge	70 00											70 00
" " Departmental tugs												
Wharfage—Dredge												
" Departmental tugs												
Repairs—Dredge	171 61											171 61
" Departmeatal tugs												
Repairs, extraordinary—Dredge												
" " Departmental tugs												
Rental of hired tugs												
Total expenditure—Dredge	4,485 07											4,485 07
Total expenditure—Departmeatal tugs												
Total expenditure—Hired tugs												
Total—Complete expenditure												
Cubic yards removed	653											653
Cost per cubic yard (calculated from total expenditure)	6 87											$6 87
Cost per hour actually dredging	8 41											$8 41
Kind of material	Boulders											
Work commenced	Aug. 4.											
Work completed	Oct. 25.											

DISTRIBUTION OF TIME IN HOURS.

	H. M.	% of total.	—	—	—	—	—	—	H. M.	% of total.
Lost by storms and weather	52 00	4·20							52 00	4·20
" repairs	130 00	15·10							130 00	15·10
" coaling										
" watering	5 00	0·40							5 00	0·40
" tide and current										
" cleaning plant										
" cleaning boilers										
" inspecting boilers										
" holidays	25 00	3·00							25 00	3·00
" waiting on scows or tug										
" waiting orders										
" towing and preparing for work	101 30	11·90							101 30	11·90
" moving dredge and changing cut	6 00	0·50							6 00	0·50
" short of coal or supplies										
" miscellaneous	7 00	0·60							7 00	0·60
Total lost time	326 30	37·80							326 30	37·80
Time actually dredging	533 30	62·20							533 30	62·20
Possible dredging time	860 00	100·00							860 00	100·00

Names of Rented Tugs included in expenditure, dates between which employed, and localities.—*Radnor*, August 1 to 21, 1913
Date Dredge put in commission.—July 17, 1913. *Dredge laid up for winter at* Pte. Mudcleine, Que., October 25, 1913.

ONTARIO AND QUEBEC.

Departmental Dredge 'No. 118 Queen,' and Plant in Attendance.

	April.	May.	June.	July.	August.	September.	October.	November.	December.	January.	February.	March.	Totals.
Material handled, c.yds		999	6,512	5,143	6,401	4,773	5,032						28,860
Kind of material		Clay	Clay	Timber rocks, clay.	Caly	Clay	Clay						
Total possible dredging time		60 00	250 00	270 00	260 00	260 00	230 00						1,330 00
Hours actually dredging		47 00	197 00	178 00	193 00	147 00	154 00						916 00
Per hour, actually dredging, c. yds.		21 00	33 00	29 00	33 00	32 00	33 00						31 5

Details of Expenditure.

	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Wages	375 67	524 68	545 00	545 00	545 00	543 83	545 00	260 00	130 00	50 00	50 00	142 50	4,256 68
Provisions		284 04	180 00	180 00	187 80	180 00	189 00	84 00				15 50	1,291 34
Fuel	110 00	5 60			415 28	568 08	128 62	10 62					1,268 20
Stores and equipment		175 01	86 14	92 83	23 41	54		7 55	10 95			212 22	608 65
Contingencies		13 80	30 99		10 74		6 00	22 95	10 00		78 90	582 81	756 19
Water													
Pilotage and towage													
Wharfage													
Rental hired tugs													
Repairs (inc. all items charged to D.V. rep'rs)	794 66	69 41	121 94	66 09	26 75	229 24		112 58	27 00	163 69	100 19	774 28	2,485 83
Repairs, extraordinary													
Totals	1,280 33	1,072 54	964 07	883 92	1,238 98	1,521 69	859 62	497 70	711 95	213 69	229 09	1,727 31	10,666 89

Expenditure Incurred Working at

	New Liskeard.	Haileybury.	Dawson's Point.	Lorraine.	Ville Marie.	—	—	Totals.
	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.			$ cts.
Wages—Dredge	771 41	1,105 99	37 18	116 17	2,225 93			4,256 68
" Departmental tugs								
Provisions—Dredge	234 02	335 52	11 28	35 24	675 28			1,291 34
" Departmental tugs								
Fuel—Dredge	229 82	329 52	11 08	34 61	663 17			1,268 20
" Departmental tugs								
Stores and equipment—Dredge	110 30	158 14	5 31	16 62	318 28			* 608 65
" " Departmental tugs								
Contingencies—Dredge	137 04	196 48	6 60	20 64	395 43			756 19
" Departmental tugs								
Water—Dredge								
" Departmental tugs								

Pilotage and towage—Dredge									
" " Departmental tugs									
Wharfage—Dredge									
" Departmental tugs									
Repairs—Dredge	450 49	645 88	21 71	68 85	1,299 90			2,485 83	
" Departmental tugs									
Repairs, extraordinary—Dredge									
" " Departmental tugs									
Rental of hired tugs									
Total expenditure—Dredge	1,933 08	2,771 53	93 16	291 13	5,577 99			10,666 89	
Total expenditure—Departmental tugs									
Total expenditure—hired tugs									
Total—Complete expenditure	1,933 08	2,771 53	93 16	291 13	5,577 99			10,666 89	
Cubic yards removed	4,625	7,770	74	481	15,910			28,860	
Cost per cubic yard (calculated from total expenditure)	41·79 cts.	35·67 cts.	$1 25	64·68 cts.	35·05 cts.			36·96 cts.	
Cost per hour actually dredging	$11 65	$11 65	$11 65	$11 65	$11 65			$11 65	
Kind of material	Clay	Clay	Timber & rocks	Clay	Clay				
Work commenced	May 26	June 20	July 29	July 31	Aug. 2				
Work completed	June 18	July 26	July 29	Aug. 1	Oct. 27				

DISTRIBUTION OF TIME IN HOURS.

	H. M.	% of total.	H. M.	% of total.	H. M.	% of total.	H. M.	% of total.	H. M.	% of total.	—	—	H. M.	% of total.
Lost by storms and weather	8 00	3·80	3 00	0·90					65 00	8·90			76 00	5·70
" repairs	6 00	2·90	39 00	11·50					41 00	5·60			86 00	6·50
" coaling	5 30	2·60	4 00	1·20					34 00	4·70			43 30	3·30
" watering														
" tide and current														
" cleaning plant	1 30	0·70	4 00	1·20					5 00	0·70			10 30	1·10
" cleaning boilers									1 00	0·10			1 00	
" inspecting boilers									6 00	0·80			6 00	0·50
" holidays	10 00	4·80	10 00	2·90					10 00	1·40			30 00	2·20
" waiting on scows or tug			1 00	0·30					26 00	3·60			27 00	2·60
" waiting orders														
" towing and preparing for work	2 00	0·90	6 00	1·80	2 00	20·00	15 00	37·50					25 00	1·90
" moving dredge and changing cut	10 00	4·80	15 00	4·30					20 00	2·70			45 00	3·40
" short of coal or supplies			16 00	4·70									16 00	1·20
" miscellaneous	1 00	0·50	4 00	1·20					43 00	5·90			48 00	3·60
Total lost time	44 00	21·00	102 00	30·00	2 00	20·00	15 00	37·50	251 00	34·40			414 00	31·40
Time actually dredging	166 00	79·00	238 00	70 00	8 00	80·00	25 00	62·50	479 00	65·60			916 00	68·60
Possible dredging time	210 00	100·00	340 00	100·00	10 00	100·00	40 00	100·00	730 00	100·00			1330 00	100·00

Names of Departmental Tugs included in expenditure, dates between which employed, and localities.—Tug *Dora* in attendance all season.
Names or Rented Tugs included in expenditure, dates between which employed, and localities.—Tug *Scotchman*, November 1 to 30.
Date Dredge put in commission.—May 23. *Dredge laid up for winter at* Haileybury Shipyard, November 15.

ONTARIO.

Departmental Dredge 'No. 109 Industry,' and Plant in Attendance.

	April.	May.	June.	July.	August.	September.	October.	November.	December.	January.	February.	March.	Totals.
Material handled, c.yds	3,788	20,401	41,452	31,518	58,052	23,014	13,144	6,287					197,656
Kind of material	Hardpan, rock, sand boulders.	Boulders, hadpan clay, silt, stone,sand	Gravel, boulders quicksand silt	Silt, sand, gravel, clay, quicksand boulders.	Boulders, clay gravel, hard-pan wreck age.	Gravel,sand boulders, hardpan, silt, drift wood	Hardpan, sand, gravel, boulders,drift-wood, rock.	Hardpan, Rock, clay.					
Total possible dredging time	70 00	270 00	250 00	270 00	260 00	260 00	270 00	130 00					1,770 00
Hoursactually dredging	40 30	164 45	176 45	173 30	200 30	167 30	148 00	71 30					1,143 00
Per hour actually dredging	93 50	123 75	234 50	181 75	289 50	137 50	88 75	88 00					172 75

DETAILS OF EXPENDITURE.

	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$c ts.	$ cts.	$ cts.	$ crs.
Wages	1,245 57	1,246 29	1,268 17	1,265 64	1,265 00	1,267 67	1,284 35	1,171 33	589 32	82 26	55 00	625 30	11,365 90
Provisions	336 50	352 74	361 50	362 71	361 20	345 50	363 87	355 33	35 46			111 50	2,986 31
Fuel	730 04		388 30	1,402 19	221 00		2,030 73		1,003 50				5,775 76
Stores and equipment		42 96	82 41	63 68	26 64	573 88	410 45	354 87	456 22		112 90	467 15	2,600 16
Contingencies	37 70	19 47	24 50	13 41	33 24	56 86	12 04	39 65	102 91		13 75	139 20	492 73
Water													
Pilotage and towage													
Wharfage													
Rental hired tugs.)													
Repairs (inc. all items charged to D.V.rep'rs)		2,032 40	250 98	164 76	36 92	605 87	29 05	163 85	200 37	643 22	406 30	1,250 90	5,784 62
Repairs—Extraordin'y													
Totals	2,349 81	3,693 86	2,375 86	3,272 39	1,944 00	2,849 78	4,139 49	2,085 03	2,387 78	725 48	587 95	2,594 05	29,005 48

EXPENDITURE INCURRED WORKING AT

	Collingwood, Ont.	Meaford, Ont.	Owen Sound, Ont.	Griffith Island.	Wiarton, Ont.	Colpoys Bay.		Totals.
	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.		$ cts.
Wages—Dredge	3,602 19	4,894 89	1,715 33	139 21	636 41	377 87		11,365 90
" Departmental tugs								
Provisions—Dredge	946 45	1,286 09	456 69	36 58	167 22	99 28		2,986 31
" Departmental tugs								
Fuel—Dredge	1,830 51	2,487 42	871 67	70 74	323 40	192 02		5,775 76
" Departmental tugs								
Stores and equipment—Dredge	824 07	1,119 80	392 41	31 85	145 59	86 44		2,600 16
" " Departmental tugs								

Contingencies—Dredge	156 16	212 20	74 36	6 04	27 59	16 38	492 73
" Departmental tugs							
Water—Dredge							
" Departmental tugs							
Pilotage and towage—Dredge							
" " Departmental tugs							
Wharfage—Dredge							
" Departmental tugs							
Repairs—Dredge	1,833 30	2,491 24	873 01	70 85	323 90	192 32	5,784 62
" Departmental tugs							
Repairs, extraordinary—Dredge							
" " Departmental tugs							
Total expenditure—Dredge	9,192 68	12,491 64	4,377 47	355 27	1,624 11	964 31	29,005 48
Total expenditure—Departmental tugs							
Total expenditure hired tugs							
Total—complete expenditure	9,192 68	12,491 64	4,377 47	355 27	1,624 11	964 31	29,005 48
Cubic yards removed	35,161	109,106	30,107	3,100	13,486	6,696	197,656
Cost per c. yard (calculated from total expenditure)	26·14 cts.	11,45 cts.	14·53 cts.	11·46 cts.	12·04 cts.	14·40 cts.	14·66 cts.
Cost per hour actually dredging	$25·37	$25·37	$22·47	$25·37	$25·37	$25·37	$25·37
Kind of material	Sand, clay, hardpan, gravel, rock, silt, stone.	Clay, boulders, gravel, silt, hardpan, sand driftwood.	Quicksand, silt.	Sand and gravel	Clay.	Clay and quicksand.	
Work commenced	April 23, Oct. 4	May 22, July 31	June 12	July 11	July 16	July 25	
Work completed	May 16, Nov. 14	June 10, Sept. 29	July 8	July 16	July 24	July 30	

DISTRIBUTION OF TIME IN HOURS.

	H. M	% of total.	H. M	% of total.	H. M.	% of total.	H. M.	% of total.	H. M	% of total.	H. M	% of total.	H. M	% of total.	H. M.	% of total.
Lost by storms and weather	96 00	15·50	63 30	8·80			28 00	43·80							187 30	10·60
" repairs	77 00	12·40	16 30	2·30	4 00	1·70	20 00	31·20	1 30	2·00					119 00	6·70
" coaling	2 00	0·30	26 30	3·70	2 00	0·80							4·00	8·00	34 30	2·00
" watering																
" tides and current																
" cleaning plant	4 00	0·60	7 30	1·10	3 00	1·20			1 00	1·30	1 00	2·00			16 30	0·90
" cleaning boilers	2 00	0·30	1 00		1 30	0·60									4 30	0·30
" inspecting boilers																
" holidays	10 00	1·60	20 00	2·80	10 00	4·20									40 00	2·30
" waiting on scows or tug	1 00	0·10	3 30	0·50											4 30	0·30
" waiting orders					20 00	8·30									20 00	1·10
" towing and preparing for work	18 30	3·00	34 00	4·70	20 00	8·30	2 00	3·10	4 00	5·30	7 00	14·00			85 30	4·80
" moving dredge and changing cut	35 15	5·70	25 45	3·50	6 00	2·50			5 30	7·30					72 30	4·10
" short of coal or supplies																
" miscellaneous	12 00	1·90	29 30	4·10	1 00	0·40									42 30	2·40
Total lost time	257 45	41·40	227 45	31·50	67 30	28·00	50 00	78·10	12 00	15·90	12 00	25·00			627 00	35·50
Time actually dredging	362 15	58·60	492 15	68·50	172 30	72·00	14 00	21·90	64 00	84·10	38 00	75·00			1,143 00	64·50
Possible dredging time	620 00	100·00	720 00	100·00	240 00	100·00	64 00	100·00	76 00	100·00	50 00	100·00			1,770 00	100·00

Names of Departmental Tugs included in expenditure, dates between which employed, and localities:—Tug *Hercules*, in attendance all season.
Date Dredge put in commission—April 21. *Dredge laid up for winter at* Collingwood, Ont., December 3, 1913.

ONTARIO—*Continued.*

Departmental Dredge 'No. 112 Mattawa' and Plant in Attendance.

	April.	May.	June.	July.	August.	September.	October.	November.	December.	January.	February.	March.	Totals.
Material handled, c.yds		2,015	5,355	8,030	4,810	1,980							22,190
Kind of material		Clay	Clay	Clay	Clay	Sand							
Total possible dredging time		120 00	250 00	270 00	270 00	210 00							1,120 00
Hours actually dredging		27 00	72 00	122 00	81 00	106 45							408 45
Per hour, actually dredging.....c yds		74·00	74 00	66 00	59·00	14·00							53

DETAILS OF EXPENDITURE.

	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Wages	410 34	478 88	496 00	495 15	553 54	469 33	101 09	82 74	100 00	118 00	60 00	146 61	3,512 58
Provisions	153 50	139 84	186 15	202 26	203 17	142 75	40 07		28 50			22 50	1,119 64
Fuel		29 50		295 15	164 03	24 00	99 50	2 00			194 55	25 63	834 36
Stores and equipment		31 95	133 37	148 01	14 14	16 85	77 22	3 45	14 45			231 31	670 75
Contingencies		52 76	41 39	67 07	18 68	39 78	20 05		385 63	173 48	15 38	596 82	1,411 94
Water													
Pilotage and towage								30 00					30 00
Wharfage													
Rental hired tugs				195 00	437 00	224 00	76 00						932 00
Repairs (inc. all items charged to D.V.rep'rs)		80 33	109 43	64 70	34 01	953 81	41 21	228 97	481 87	99 32	292 33	45 15	2,431 13
Repairs—Extraordin'y													
Totals	563 84	813 26	966 34	1,467 34	1,424 57	1,870 52	457 84	347 16	1,010 45	390 80	562 26	1,068 02	10,942 40

EXPEDNITURE INCURRED WORKING AT

	Cache Bay, Ont.	North Bay, Ont.	French River.	—	—	—	—	Totals.
	$ cts.	$ cts.	$ cts.					$ cts.
Wages—Dredge	2,595 23	736 89	180 46					3,512 58
" Departmental tugs								
Provisions—Dredge	827 23	234 89	57 52					1,119 64
" Departmental tugs								
Fuel—Dredge	616 46	175 03	42 87					834 36
" Departmental tugs								
Stores and equipment—Dredge	495 57	140 71	34 47					670 75
" " Departmental tugs								
Contiagencies—Dredge	1,043 19	296 21	72 54					1,411 94
" Departmental tugs								
Water—Dredge								
" Departmental tugs								
Pilotage and towage—Dredge	22 17	6 20	1 54					30 00
" " Departmental tugs								

Wharfage—Dredge									
" Departmental tugs									
Repairs—Dredge	1,790 21	510 02	124 90						2,431 13
" Departmental tugs									
Repairs, extraordinary—Dredge									
" " Departmental tugs									
Rental of hired tugs	836 00	56 00	40 00						932 00
Total expenditure—Dredge	7,396 06	2,100 04	514 30						10,010 40
Total expenditure—Departmental tugs									
Total expenditure—Hired tugs	836 00	56 00	40 00						932 00
Total—Complete expenditure	8,232 06	2,156 04	554 30						10,942 40
Cubic yards removed	20,210	1,550	430						22,190
Cost per cubic yard (calculated from total expenditure)	40·32c.	$1 39	$1 29						49·31c.
Cost per hour actually dredging	$27·25	$23·09	$26·39						$26·77
Kind of material	Clay	Clay	Sand, rock, logs.						
Work commenced	May 21.	Sept. 2.	Sept. 20.						
Work completed	Aug. 26.	Sept. 15.	Sept. 24.						

DISTRIBUTION OF TIME IN HOURS.

	H. M.	% of total.	H. M.	% of total.	H. M.	% if total.	—	—	—	—	H. M.	% of total.
Lost by storms and weather			12 30	7·40	10 00	9·10					22 30	2·10
" repairs												
" coaling												
" watering												
" tide and current												
" cleaning plant												
" cleaning boilers												
" inspecting boilers	9 00	1·10									9 00	0·80
" holidays	20 00	2·30	5 00	2·90							25 00	2·20
" waiting on scows or tug	502 00	59·80									502 00	44·90
" waiting orders												
" towing and preparing for work	7 00	0·80	56 00	33·00	50 00	45·50					113 00	10·00
" moving dredge and changing cut												
" short of coal or supplies												
" miscellaneous			10 45	6·30	29 00	26·30					39 45	3·60
Total lost time	538 00	64·00	84 15	49·60	89 00	80·90					711 15	63·60
Time actually dredging	302 00	36·00	85 45	50·40	21 00	19·10					408 45	36·40
Possible dredging time	840 00	100·00	170 00	100·00	110 00	100·00					1120 00	100·00

Names of Departmental tugs included in expenditure, dates between which employed, and localities.—Tug *Catheriae C*, May 19, to June 12 at Cache Bay, July 28 to August 23, Cache Bay; September 8 to 24th, North Bay and French River.

Names of Rented Tugs included in expenditure, dates between which employed, and localities.—Tug *Alligator*, June 13 to July 24 at Cache Bay. Tug *King Edward*, June 20 to September 3, at Cache Bay and North Bay. Tug *Sea Gull*, September 18. Tug *Callendar*, August 9, towing from Iron Island to North Bay

Date Dredge put in commission.—May 16, 1913. *Dredge laid up for winter at* Sturgeon Falls, Ont., October 17, 1913

Remarks.—At Cache Bay the distance to dumping ground was five miles which delayed dredge considerably.

ONTARIO—*Continued.*

Departmental Dredge 'No. 114 Ontario,' and Plant in Attendance.

—	April.	May.	June.	July.	August.	September.	October.	November	December	January.	February.	March.	Totals.
Material handled, c. yds			6,291	4,916	4,557	5,381	7,636	6,270					35,051
Kind of material			Clay	Clay, sand, logs.	Sand, logs	Sand, clay logs.	Clay	Clay					
Total possible dredging time			150 00	270 00	260 00	260 00	270 00	210 00					1,420 00
Hour actually dredging			75 30	10 00	95 30	81 30	122 30	111 15					585 30
Per hour, actually dredging			83 25	49 00	47 75	65 50	62 50	56 25					60 00

Details of Expenditure.

	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Wages	428 05	526 94	483 66	510 00	555 00	544 50	555 49	548 94	332 82	50 00	50 00	332 75	4,918 15
Provisions	48 50	191 97	165 00	125 81	169 50	182 25	523 39	171 70	100 23			80 00	1,758 35
Fuel			12 00		375 21	228 00	104 50	141 20	155 40				1,016 31
Stores and equipment		296 54	324 97	6 99	131 43	127 60	29 54	128 76	138 56		13 50	231 85	1,429 74
Contingencies	19 50	42 09	28 66	6 75	10 41	41 50		15 77	139 84	1 81	27 20	837 72	1,171 25
Water													
Pilotage and towage													
Wharfage													
Rental hired tugs													
Repairs (inc. all items charged to D.V. rep'rs)		104 88	205 58	179 84	447 40	448 12	4,637 80	153 58	306 92	880 76	323 03	411 85	8,099 76
Repairs, extraordinary							4,558 49			822 42			5,380 91
Totals	496 05	1,162 42	1,219 87	829 39	1,688 95	1,571 97	5,850 72	1,159 95	1,173 77	932 57	413 73	1,894 17	18,393 56

Expenditure Incurred Working at

—	Courtright. $ cts.	River Thames. $ cts.	Sarnia. $ cts.	—	—	—	—	Totals. $ cts.
Wages—Dredge	634 19	2,217 58	2,066 38					4,918 15
" Departmental tugs								1,758 35
Provisions—Dredge	226 74	792 83	738 78					
" Departmental tugs								1,016 31
Fuel—Dredge	131 05	458 25	427 01					
" Departmental tugs								1,429 74
Stores and Equipment—Dredge	184 36	644 67	600 71					
" " Departmental tugs								1,171 25
Contingencies—Dredge	151 03	528 12	492 10					
" Departmental tugs								
Water—Dredge								
" Departmental tugs								
Pilotage and towage—Dredge								
" " Departmental tugs								

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ONTARIO—*Continued.*

Departmental Dredge 'No. 105,' and Plant in Attendance.

—	April.	May.	June.	July.	August.	September.	October.	November.	December.	January.	February.	March.	Totals.
Material handled, c.yd.	.....	2,460	10,000	15,112	7,870	7,866	13,804	15,358	.....	.....	.....	.....	72,470
Kind of material	.....	Clay.....	Sand, clay, & gumbo.	Sand, clay, & gumbo.	Sand, clay..	Sand.....	Sand, mud, clay and gravel.	Mud clay, gravel, hardpan, logs.	.....	.....	.....	.....	.....
Total possible dredging time	.....	100 00	250 00	270 00	260 00	260 00	270 00	240 00	.....	.....	.....	.....	1,650
Hours actually dredging	.....	45 00	164 00	217 30	121 00	121 30	165 00	183 00	.....	.....	.....	.....	1,017
Per hour, actually dredging.....c. yds.	.....	54·75	61·00	60·25	65·00	64·50	83·75	83·75	.....	.....	.....	.....	71·25

Details of Expenditure.

	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Wages	363 16	594 82	548 83	570 13	539 28	571 50	567 17	592 23	334 62	101 50	.....	341 13	5,124 37
Provisions	32 80	167 85	165 00	169 40	161 76	173 65	169 18	165 80	62 23	.....	.....	81 00	1,348 67
Fuel	.....	195 10	194 00	213 40	218 60	7 00	507 48	368 25	543 56	.....	.....	.....	2,247 39
Stores and equipment	.....	352 24	257 71	53 50	278 42	188 26	63 95	57 50	96 74	102 60	.....	780 45	2,231 37
Contingencies	.....	270 80	9 70	3 00	2 69	3 00	14 48	3 00	71 17	.....	.....	833 14	1,210 98
Water	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Pilotage and towage	5 00	4 30	.....	.....	.....	.....	86 50	.....	25 00	.....	.....	.....	120 80
Wharfage	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Rental hired tugs	.....	.....	.....	.....	.....	.....	100 00	.....	.....	.....	.....	.....	100 00DD
Repairs (inc. all items charged to D. V.rep'rs	79 54	9 47	994 87	2,630 91	72 09	428 21	67 68	483 49	175 68	108 30	217 50	10 64	5,278 38o
Repairs—Extraordin'y	.....	.....	.....	1,970 09	.....	.....	.....	.....	.....	.....	.....	.....	1,970 00
Totals	480 50	1,594 58	2,170 11	3,640 34	1,272 84	1,371 62	1,576 44	1,670 27	1,309 00	312 40	217 50	2,046 36	17,661 96

Expenditure Incurred Working at

	Hamilton, Ont.	Bowmanville, Ont.	South Bay, Ont.	—	—	—	—	Totals.
	$ cts.	$ cts.	$ cts.					$ cts
Wages—Dredge	2,652 88	758 33	1,713 16	.....	.....	.....	.....	5,124 37
" Departmental tugs	.....	.....	.....	.....	.....	.....	.....	.....
Provisions—Dredge	698 21	199 58	450 88	.....	.....	.....	.....	1,348 67
" Departmental tugs	.....	.....	.....	.....	.....	.....	.....	.....
Fuel—Dredge	1,163 47	332 58	751 34	.....	.....	.....	.....	2,247 39
" Departmental tugs	.....	.....	.....	.....	.....	.....	.....	.....
Stores and equipment—Dredge	1,155 18	330 21	745 98	.....	.....	.....	.....	2,231 37
" " Departmental tugs	.....	.....	.....	.....	.....	.....	.....	.....
Contingencies—Dredge	626 92	179 20	404 86	.....	.....	.....	.....	1,210 98
" Departmental tugs	.....	.....	.....	.....	.....	.....	.....	.....

Water—Dredge									
" Departmental tugs									
Pilotage and towage—Dredge	62 54	17 88	40 38						120 80
" " Departmental tugs									
Wharfage—Dredge									
" Departmental tugs									
Repairs, ordinary—Dredge	1,712 70	489 57	1,106 02						3,308 29
" " Departmental tugs									
Repairs, extraordinary—Dredge	1,019 91	291 54	658 64						1,970 09
" " Departmental tugs									
Rental of hired tugs	51 77	14 80	33 43						100 00
Total expenditure—Dredge	9,091 81	2,598 89	5,871 26						17,561 96
Total expenditure—Departmental tugs									
Total expenditure—Hired tugs	51 77	14 80	33 43						100 00
Total—Complete expenditure	9,143 58	2,613 69	5,904 69						17,661 96
Cubic yards removed	34,230	9,600	28,640						72,470
Cost per cubic yard (calculated from total expenditure)	26·71 cts.	27·23 cts.	20·61 cts.						24·37 cts
Cost per hour actually dredging	$17·37	$17·37	$17·37						$17·37
Kind of material	Sand, clay, gumbo.	Sand and clay.	Mud, gravel, clay, hardpan, and logs.						
Work commenced	May 21	Aug. 27	Oct. 8						
Work completed	Aug. 15	Oct. 2	Nov. 28						

DISTRIBUTION OF TIME IN HOURS.

—	H. m.	% of total.	H. m.	% of total.	H. m.	% of total	—	—	—	—	H. m.	% of total.
Lost by storms and weather	56 00	7·50	186 30	45·50	52 00	10·70					294 30	17·90
" repairs	27 30	3·70	7 00	1·70	3 00	0·60					37 30	2·30
" coaling	9 00	1·20	10 00	2·40	29 00	5·90					48 00	2·90
" watering												
" tide and current												
" cleaning plant	6 00	0·80	1 00	0·20							7 00	0·40
" cleaning boilers	30 00	4·00									30 00	1·80
" inspecting boilers												
" holidays	40 00	5·30	10 00	2·40	10 00	2·00					60 00	3·60
" waiting on scows or tug	2 00	0·30									2 00	0·10
" waiting orders												
" towing and preparing for work			38 00	9·30	51 00	10·40					89 00	5·40
" moving dredge and changing cut	7 00	0·90			5 00	1·00					12 00	0·70
" short of coal or supplies												
" miscellaneous	46 00	6·10	7 00	1·70							53 00	3·20
Total lost time	223 30	29·80	259 30	63·20	150 00	30·60					633 00	38·30
Time actually dredging	526 30	70·20	150 30	36·80	340 00	69·40					1,017 00	61·70
Possible dredging time	750 00	100·00	410 00	100·00	490 00	100·00					1,650 00	100·00

Names of Departmental Tugs included in expenditure, dates between which employed, and localities:—Tug *Sir John*, Hamilton, May 10, August 15; Bowmanville, August 18, 20, 25, October 2; South Bay, October 3 to November 28. Tug *Peel*, Bowmanville, August 21 to 23.

Date Dredge put in commission—May 14. *Dredge laid up for winter at* South Bay, Ont., December 13.

ONTARIO—*Continued.*

Departmental Dredge 'No. 117 Quebec,' and Plant in Attendance.

——	April.	May.	June.	July.	August.	September	October.	November.	December.	January.	February.	March.	Totals.
Material handled, c.yds	13,920	43,500	40,270	44,805	38,880	42,440	45,360	40,540					309,715
Kind of material	Gumbo, clay.	Gumbo	Gumbo	Gumbo	Gumbo	Gumbo, clay.	Gumbo, clay.	Slush, clay & gumbo.					
Total possible dredging time	140 00	270 00	250 00	270 00	260 00	260 00	270 00	250 00					1,970 00
Hours actually dredging	55 00	164 30	154 00	163 00	153 45	164 15	193 45	155 30					1,203 45
Per hour, actually dredging.....c. yds.	253·00	264·25	261·50	274·75	236·75	258·25	234 00	261·00					257·25

DETAILS OF EXPENDITURE.

	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Wages	1,197 50	1,237 08	1,209 00	1,290 89	1,299 54	1,251 43	1,274 95	1,264 86	1,109 49	79 03	50 00	727 88	11,991 65
Provisions	334 50	345 00	345 00	343 06	338 99	345 00	343 55	338 00	230 13	3 39		175 00	3,141 62
Fuel	363 01	830 64	516 53	940 49	1,014 97	797 20	1,071 80	926 60	546 40	7 00	7 00	7 00	7,028 64
Stores and equipment		423 58	87 90	73 13	698 51	253 66	278 56	190 56	284 65	125 64	230 72	612 76	3,259 67
Contingencies		15 17	3 55	5 95	118 41	13 31	7 90	4 02	40 35	7 07	6 25	860 45	1,082 43
Water													
Pilotage and towage													
Wharfage													
Rental hired tugs													
Repairs (incl. all items charged to D.V.rep'rs)		147 88	216 45	138 10	122 62	79 83	415 16	32 75	238 22	37 73	771 40	536 08	2,736 22
Repairs—Extraordin'y													
Totals	1,895 01	2,999 35	2,378 43	2,791 62	3,593 04	2,740 43	3,391 92	2,756 79	2,449 24	259 86	1,065 37	2,919 17	29,240 23

EXPENDITURE INCURRED WORKING AT

——	Hamilton, Ont.	—	—	—	—	—	—	Totals.
	$ cts.							$ cts.
Wages—Dredge	11,991 65							11,991 65
" Departmental tugs								
Provisions—Dredge	3,141 62							3,141 62
" Departmental tugs								
Fuel—Dredge	7,028 64							7,028 64
" Departmental tugs								
Stores and equipment—Dredge	3,259 67							3,259 67
" " Departmental tugs								
Contingencies—Dredge	1,082 43							1,082 43
" Departmental tugs								
Water—Dredge								
" Departmental tugs								

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ONTARIO—*Concluded.*

Departmental Dredge 'No. 120 Sir Richard,' and Plant in Attendance.

—	April.	May.	June.	July.	August.	September.	October.	November.	December.	January.	February.	March.	Totals.
Material handled, c.yds	6,350	13,150	11,800	15,400	11,150	11,150	9,750	9,150	7,050				94,950
Kind of material	Sand	Sand	Sand	Clay, sand	Sand, stones clay.	Muck, sand, silt.	Clay, sand, gravel.	Sand, clay	Sand, clay				
Total possible dredging time	215 00	312 00	289 30	286 00	268 00	260 00	291 00	261 00	232 00				2,414 30
Hours actually dredging	147 00	224 30	171 30	188 00	128 00	135 30	122 30	103 00	88 00				1,308 00
Per hour, actually dredging .....c. yds.	43 25	58 50	68 50	82 00	87 00	82 25	79 50	88 50	80 00				72 50

DETAILS OF EXPENDITURE.

	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Wages	633 20	681 86	638 47	587 09	555 00	565 75	559 36	614 75	563 93	197 67	37 50	358 48	5,993 06
Provisions	158 00	165 00	187 00	163 06	168 60	182 20	171 20	165 00	178 50	18 07		70 50	1,627 13
Fuel			137 78	272 05	279 05	329 12	278 08	203 02	152 93	74 15	143 38	142 45	2,012 01
Stores and equipment	1 68	125 02	17 38	159 70	119 91	104 83	157 72	51 26	5 88	32 42	9 11	280 88	1,065 79
Contingencies	18 65	4 80	18 96	23 00	16 15	23 64		20 41	15 13	51 29	20 01	876 30	1,088 34
Water													
Pilotage and towage													
Wharfage													
Rental hired tugs													
Repairs (inc. all items charged to D.V. rep'rs)						135 00	200 00						335 00
Repairs—extraordinary	79 16	43 39	22 23	143 14	73 49	312 40	30 68	106 13	446 30	192 13	130 00	460 20	1,940 25
Totals	890 69	1,020 07	1,021 82	1,348 04	1,212 20	1,553 94	1,397 04	1,160 57	1,362 67	565 73	340 00	2,188 81	14,061 58

EXPENDITURE INCURRED WORKING AT

—	Port Burwell.	Port Bruce.	Rondeau.	—	—	—	—	Totals.
Wages—Dredge	$ cts. 3,468 46	$ cts. 1,876 27	$ cts. 648 33					$ cts. 5,993·06
" Departmental tugs								
Provisions—Dredge	941 70	509 41	176 02					1,627 13
" Departmental tugs								
Fuel—Dredge	1,164 44	629 91	217 66					2,012 01
" Departmental tugs								
Stores and equipment—Dredge	616 82	333 67	115 30					1,065 79
" " Departmental tugs								
Contingencies—Dredge	629 87	340 73	117 74					1,088 34
" Departmental tugs								
Water—Dredge								
" Departmental tugs								

| | | |

MANITOBA.

Departmental Dredge 'Assiniboine No. 201,' and Plant in Attendance.

	April.	May.	June.	July.	August.	September.	October.	November.	December.	January.	February.	March.	Totals.
Material handled, c yds.	1,599	20,153	15,835	18,021	17,791	20,345							93,744
Kind of material	Sandy clay.	Sandy clay.	Sandy clay.	Sandy clay.	Sandy clay.	Sandy clay.							
Total possible dredging time	260 00	270 00	250 00	270 00	260 00	260 00	3 00	40 00					1,613 00
Hours actually dredging	14 00	135 00	109 00	135 00	147 00	157 00							697 00
Per hour, netually dredging....e. yds.	114·00	149·00	143·00	133·50	121·00	129·50							

DETAILS OF EXPENDITURE.

	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Wages	348 65	550 00	550 00	535 00	520 80	535 00		77 97					3,117 42
Provisions	189 06	190 27	111 74	365 03	80 55	181 27	85 90	1 87					1,205 69
Fuel	435 92	464 72	447 83	410 77	245 93	456 78	448 17						2,910 12
Stores and equipment	432 65	73 63	33 21	29 06	51 22	35 75	11 75						667 27
Contingencies	10 25		16 00	8 00	69 75	8 00							112 00
Water													
Pilotage and towage													
Wharfage													
Rental hired tugs													
Repairs (inc. all items charged to D.V.rep'rs)	588 94	6 40	118 45		6 00	94 95	393 01		78 00	340 75	216 02	684 96	2,527 48
Repairs—Extraordin'y													
Totals	2,005 47	1,285 02	1,277 23	1,347 86	974 25	1,311 75	938 83	79 84	78 00	340 75	216 02	684 96	10,539 98

EXPENDITURE INCURRED WORKING AT

	Red River New Entranee Channel.	—	—	—	—	—	—	Totals.
	$ cts.							$ cts.
Wages—Dredge	3,117 42							3,117 42
" Departmental tugs								
Provisions—Dredge	1,205 69							1,205 69
" Departmental tugs								
Fuel—Dredge	2,910 12							2,910 12
" Departmental tugs								
Stores and equipment—Dredge	667 27							667 27
" " Departmental tugs								
Contingencies—Dredge	112 00							112 00
" Departmental tugs								

Water—Dredge												
" Departmental tugs												
Pilotage and towage—Dredge												
" " Departmental tugs												
Wharfage—Dredge												
" Departmental tugs												
Repairs—Dredge	2,527 48										2,527 48	
" Departmental tugs												
Repairs, extraordinary—Dredge												
" " Departmental tugs												
Rental of hired tugs												
Total expenditure—Dredge	10,539 98										10,539 98	
Total expenditure—Departmental tugs												
Total expenditure—Hired tugs												
Total—Complete expenditure	10,539 98										10,539 98	
Cubic yards removed	93,744										93,744	
Cost per cubic yard (calculated from total expenditure)	11·24c										11·24c	
Cost per hour actually dredging	$15 12										$15 12	
Kind of material	Sandy clay											
Work commenced	April 24.											
Work completed	Oct. 1.											

DISTRIBUTION OF TIME IN HOURS.

	H. M.	% of total.	—	—	—	—	—	—	H. M.	% of total.
Lost by storms and weather	408 00	45·00							408 00	45·00
" repairs	42 05	5·00							42 05	5·00
" coaling	13 00	1·00							13 00	1·00
" watering										
" tide and current										
" cleaning plant										
" cleaning boilers										
" inspecting boilers	3 00	0·25							3 00	0·25
" holidays	30 00	3·00							30 00	3·00
" waiting on scows or tug										
" waiting orders										
" towing and preparing for work	136 00	15·00							136 00	15·00
" moving dredge and changing cut										
" short of coal or supplies										
" fitting out	200 00	22·00							200 00	22·00
" laying up	40 00	4·00							40 00	4·00
" miscellaneous	44 00	5·00							44 00	5·00
Total lost time	916 00	56·80							916 00	56·80
Time actually dredging	697 00	43·20							697 00	43·20
Possible dredging time	1613 00	100·00							1613 00	100·00

Date Dredge put in commission.—April 1, 1913. *Dredge laid up for winter at* Selkirk Slough, November 5, 1913.

MANITOBA—*Continued.*

Departmental Dredge 'Crane No. 202,' and Plant in Attendance.

	April.	May.	June.	July.	August.	September.	October.	November.	December.	January.	February.	March.	Totals.
Material handled, c. yds.	767	7,375	4,012	2,891	5,634	9,794	8,963						39,436
Kind of material	Mud.	Mud & clay	Clay & rock	Rock.	Rock, hard clay and clay.	Clay.	Clay.						
Total possible dredging time	260 00	270 00	250 00	270 00	260 00	260 00	270 00	40 00					1,880 00
Hours actually dredging	21 00	141 00	185 00	240 00	154 00	167 00	150 00						1,058 00
Per hour actually dredging..... c. yds	37 00	52 00	22 00	12 00	36 50	59 00	60 00						
DETAILS OF EXPENDITURE.													
Wages	348 48	685 00	657 99	670 00	708 07	670 00	600 31	88 65					4,428 50
Provisions	146 47	248 00	247 48	287 36	106 95	289 27	70 10	92 71	4 08				1,499 32
Fuel	404 57	232 03	143 98	345 24	457 43		210 85						1,854 10
Stores and equipment	310 42	42 03		91 78	24 20	24 87	135 63						628 93
Contingencies	5 75	12 75	8 00	8 00	8 00	14 75	8 00						65 25
Water													
Pilotage and towage													
Wharfage													
Rental hired tugs													
Repairs (inc. all items charged to D.V.rep'rs)	114 36		70 25	94 80	122 96	97 50	280 79	1 35	37 80	117 27	218 32	336 30	1,491 70
Repairs—Extraordin'y													
Totals	1,390 05	1,220 71	1,127 70	1,497 18	1,427 61	1,096 39	1,311 68	182 71	41 88	117 27	218 32	336 30	9,967 80

EXPENDITURE INCURRED WORKING AT

	Selkirk Slough.	Lockport.	Mouth of Red River.	North of Netley Creek.	Fish Hatchery	—	—	Totals.
Wages—Dredge	245 98	1,043 67	1,093 44	245 98	44 08			2,673 15
" Departmental tugs	161 53	685 34	718 01	161 53	28 94			1,755 35
Provisions—Dredge	91 98	390 25	408 86	91 98	16 48			999 55
" Departmental tugs	45 99	195 12	204 43	45 99	8 24			499 77
Fuel—Dredge	113 74	482 60	505 62	113 74	20 38			1,236 08
" Departmental tugs	56 87	241 30	252 80	56 87	10 18			618 02
Stores and equipment—Dredge	38 59	163 70	171 50	38 59	6 92			419 30
" " Departmental tugs	19 29	81 85	85 75	19 29	3 45			209 63
Contingencies—Dredge	4 00	16 99	17 80	4 00	0 72			43 51
" Departmental tugs	2 00	8 49	8 89	2 00	0 36			21 74
Water—Dredge								
" Departmental tugs								

Pilotage and towage—Dredge									
" " Departmental tugs									
Wharfage—Dredge									
" Departmental tugs									
Repairs—Dredge	91 52	388 26	406 78	91 52	16 40				994 48
" Departmental tugs	45 75	194 13	203 39	45 75	8 20				497 22
Repairs, extraordinary—Dredge									
" " Departmental tugs									
Rental of hired tugs									
Total expenditure—Dredge	585 81	2,485 47	2,604 00	585 81	104 98				6,366 07
Total expenditure—Departmental tugs	331 43	1,406 23	1,473 27	331 43	59 37				3,601 73
Total expenditure—hired tugs									
Total—complete expenditure	917 24	3,891 70	4,077 27	917 24	164 35				9,967 80
Cubic yards removed	4,324	5,162	22,892	6,645	413				39,436
Cost per cubic yard (calculated from total expenditure)	21·21 cts.	75·39 cts.	17·81 cts.	13·80 cts.	39·79 cts.				25·28 cts.
Cost per hour actually dredging	$8·41½	$8.86½	$9.89½	$10.66½	$13.69½				$9.42
Kind of material	Mud and clay.	Rock.	Hard clay and clay.	Clay	Clay				
Work commenced	April 28	June 9	May 16	Oct. 3	Oct. 18				
Work completed	Oct. 28	Aug. 7	Sept. 30	Oct. 17	Oct. 20				

DISTRIBUTION OF TIME IN HOURS.

	H. J.	% of total.	H. M.	% of total.	H. M.	% of total.	H. M.	% of total.	H. M.	% of total.	H. M.	—	H. M.	% of total.
Lost by storms and weather					101 00	28·30	2 00	2 30					103 00	12·50
" repairs	4 00	6·30	24 00	8·10	31 00	8·70	43 00	49·40					102 00	12·00
" coaling			5 00	2·00	18 00	5·00							23 00	3 00
" watering														
" tide and current			60 00	20·30									60 00	7·00
" cleaning plant														
" cleaning boilers	5 00	7·80	30 00	10·20	28 00	7·80	5 00	5·70					68 00	8·00
" inspecting boilers	14 00	21·90											14 00	1·50
" holidays			10 00	3·00	20 00	5·60							30 00	3·50
" waiting on scows or tug					9 00	2·50							9 00	1·00
" waiting orders														
" towing and preparing for work	5 00	7·80	30 00	10·20	30 00	8·40	12 00	14·60	15 00	79·00			92 00	11·00
" moving dredge and changing ent	5 00	7·80	5 00	2·00									10 00	1·00
" short of coal or supplies														
" fitting out and laying up plant	31 00	48·00	128 00	43·00	120 00	33·60	25 00	29·00	4 00	21·00			308 00	37·50
" miscellaneous			3 00	1·00									3 00	0·40
Total lost time	64 00	37·00	295 00	40·20	357 00	46·40	87 00	50·30	19 00	61·30			822 00	43·70
Time actually dredging	109 00	63·00	439 00	59·80	412 00	53·60	86 00	49·70	12 00	38·70			1,058 00	56·30
Possible dredging time	173 00		734 00		769 00		173 00		31 00				1,880 00	

Names of Departmental Tugs included in expenditure, dates between which employed, and localities:—Tug *Lisgar*, employed continuously throughout the season, on the dates and at the localities as above mentioned.

Date Dredge put in commission—April 1. *Dredge laid up for winter at* Selkirk Slough, November 5, 1913.

MANITOBA—*Continued.*

Departmental Dredge 'Dauphin No. 203.' and Plant in Attendance.

——	April.	May.	June.	July.	August.	September.	October.	November.	December	January.	February.	March.	Totals.
Material handled, c. yds		904	2,959	2,827	3,851	4,176	3,850						18,567
Kind of material		Clay, gravel & boulders.	Gumbo clay rock, gravel & boulders.	Gravel, rock & hardpan.	Gravel, mud hardpan, clay & sand	Gravel, clay and sand.	Mud, sand & hardpan.						....
Total possible dredging time	130 00	270 00	250 00	270 00	260 00	260 00	200 00						1,640 00
Hours actually dredging		42 00	138 00	116 00	168 00	147 00	99 00						710 00
Per hour, actually dredging c. yds.		21 50	21 50	24 00	23 00	28 00	39 00						

DETAILS OF EXPENDITURE.

	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts
Wages		635 59	548 50	586 60	607 41	593 14	378 81						3,350 05
Provisions			405 60	8 00	421 89	193 11	126 28			1 50			1,156 38
Fuel	260 00		6 00		10 00	126 55	56 88	7 60					467 03
Stores and equipment		38 64	252 00		150 66	70 80	36 88	1 40		51 25			601 63
Contingencies	3 33	6 50	23 60	6 00	28 65	5 00	116 18	10 00	71 20	102 25	50 00	54 50	477 21
Water													
Pilotage and towage													
Wharfage													
Rental hired tugs					300 00		502 77						802 77
Repairs (inc. all items charged to D.V. rep'rs)	2 78		10 17	178 80	2 82	14 85							209 42
Repairs, extraordinary													
Totals	266 11	680 73	1,245 87	779 40	1,521 43	1,003 45	1,217 80	19 00	71 20	155 00	50 00	54 50	7,064 49

EXPENDITURE INCURRED WORKING AT

——	Snake Island.	Winnipegosis.	—	—	—	—	—	Totals.
	$ cts	$ cts.						$ cts.
Wages—Dredge	1,507 44	682 30						2,189 74
" Departmental tugs	798 77	361 54						1,160 31
Provisions—Dredge	530 72	240 21						770 93
" Departmental tugs	265 35	120 10						385 45
Fuel—Dredge	160 76	72 75						233 51
" Departmental tugs	160 76	72 76						233 52
Stores and equipment—Dredge	276 12	124 98						401 10
" " Departmental tugs	138 05	62 48						200 53
Contingencies—Dredge	219 02	99 13						318 15
" Departmental tugs	109 50	49 56						159 06
Water—Dredge								
" Departmental tugs								

Pilotage and towage—Dredge								
" " Departmental tugs								
Wharfage—Dredge								
" Departmental tugs								
Repairs—Dredge	108 13	48 94						157 07
" Departmental tugs	36 04	16 31						52 35
Repairs, extraordinary—Dredge								
" " Departmental tugs								
Rental of hired tugs	401 39	401 38						802 77
Total expenditure—Dredge	2,802 19	1,268 31						4,070 50
Total expenditure—Departmental tugs	1,508 47	682 75						2,191 22
Total expenditure hired tugs	401 39	401 38						802 77
Total—Complete expenditure	4,712 05	2,352 44						7,064 49
Cubic yards removed	10,719	7,848						18,567
Cost per cubic yard (calculated from total expenditure)	43·96 cts.	29·97 cts.						38 cts.
Cost per hour actually dredging	$9 77½	$10 32						$9 95
Kind of material	Clay, gravel, mud, boulders & rock.	Mud, clay and and sand.						
Work commenced	May 24	June 13						
Work completed	Sept. 6	Oct. 14						

DISTRIBUTION OF TIME IN HOURS.

	H. M.	% of total.	H. M.	% of total.						H. M.	% of total.
Lost by storms and weather	64 00	9·90	10 00	3·50						74 00	8·00
" repairs	214 00	33·00	61 00	21·60						275 00	29·3
" coaling			1 00	0·40						1 00	0·10
" watering											
" tide and current											
" cleaning plant											
" cleaning boilers			10 00	3·50						10 00	1·00
" inspecting boilers			10 00	3·50						10 00	1·00
" holidays	35 00	5·40								35 00	3·45
" waiting on scows or tug											
" waiting orders											
" towing and preparing for work	10 00	1·50	10 00	3·50						20 00	2·00
" moving dredge and changing cut	12 00	1·90	5 00	1·80						17 00	1·45
" short of coal or supplies											
" driving piles	45 00	7·00								45 00	4·45
" fitting out and laying up plant	256 00	40·00	121 00	42·80						377 00	40·30
" miscellaneous	11 00	1·70	55 00	19·00						66 00	7·00
Total lost time	647 00	57·30	283 00	55·40						930 00	56·70
Time actually dredging	482 00	42·70	228 00	44·60						710 00	43·30
Possible dredging time	1129 00	100·00	511 00	100·00						1640 00	100·00

Names of Departmental Tugs included in expenditure, dates between which employed, and localities.—Tug *Irene*, May 24 to June 12, at Snake Island; June 18 to July 21, at Snake Island; June 13 to June 17, at Winnipegosis.

Names of Rented Tugs included in expenditure, dates between which employed, and localities.—Tug *Iona*, July 22 to September 6, at Snake Island; September 8 to October 23, at Winnipegosis.

Date Dredge put in commission.—April 15. *Dredge laid up for winter at Winnipegosis*, October 23, 1913.

MANITOBA—*Continued.*

Departmental Dredge "Red River No. 204," and Plant in Attendance.

	April.	May.	June.	July.	August.	September.	October.	November.	December.	January.	February.	March.	Totals.
Material handled, c.yds	2,596	8,632	13,275	8,791	8,614	10,542	13,734	600					66,784
Kind of material	Mud	Mud, sand clay and rocks.	Mud, sand, & clay.	Mud, sand, clay and boulders.	Clay, boulders and sand.	Sand, clay & boulders.	Sand, clay mud and gumbo.	Clay.					
Total possible dredging time	260 00	270 00	250 00	270 00	260 00	260 00	270 00	60 00					1,900 00
Hours actually dredging	44 00	158 00	201 00	149 00	174 00	190 00	222 00	9 00					1,147 00
Per hour, actually dredging.....c. yds.	59·00	54·75	61·00	59·00	49·50	55·50	62·00	66·75					

Details of Expenditure.

Wages	491 31	739 84	765 00	750 00	750 00	743 32	746 12	130 80					5,116 39
Provisions	106 86	156 10	115 30	197 43	291 73	81 09	279 50	84 16			104 30		1,416 47
Fuel	481 29	444 53	210 63	460 42	438 09	454 12	466 47						2,955 55
Stores and equipment	435 48	62 54	54 74	79 60	27 58	154 10	20 05						834 09
Contingencies	8 25	8 00	14 50	8 00	8 00	9 89	16 25						72 89
Water													
Pilotage and towage													
Wharfage													
Rental hired tugs													
Repairs (inc. all items charged to D.V.rep'rs)	279 83	8 35	17 50	55 10	155 95	47 00	152 85	90 00	255 52	230 18	191 61	197 78	1,681 67
Repairs—Extraordin'y													
Totals	1,803 02	1,419 36	1,177 67	1,550 55	1,671 35	1,489 52	1,681 24	304 96	255 52	230 18	295 91	197 78	12,077 06

Expenditure Incurred Working at

	Selkirk Slough.	Winnipeg.	Victoria Beach.	Gimli.	Selkirk Marine Railway.	—	—	Totals.
a—	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.			$ cts.
Wages—Dredge	310 40	1,072 88	529 26	1,029 82	466 47			3,408 83
" Departmental tugs	155 48	537 43	265 12	515 86	233 67			1,707 56
Provisions—Dredge	85 98	297 22	146 62	285 29	129 22			944 33
" Departmental tugs	42 99	148 60	73 30	142 64	64 61			472 14
Fuel—Dredge	179 41	620 15	305 93	595 26	269 63			1,970 38
" Departmental tugs	89 70	310 07	152 96	297 63	134 81			985 17
Stores and equipment—Dredge	50 63	175 02	86 33	167 99	76 10			556 07
" " Departmental tugs	25 32	87 50	43 17	83 99	38 04			278 02
Contingencies—Dredge	4 43	15 30	7 55	14 68	6 65			48 61
" Departmental tugs	2 21	7 64	3 77	7 34	3 32			24 28
Water—Dredge								
" Departmental tugs								

Pilotage and towage—Dredge								
" " Departmental tugs								
Wharfage—Dredge								
" Departmental tugs								
Repairs—Dredge	102 08	352 86	174 08	338 70	153 41			1,121 13
" Departmental tugs	51 03	176 43	87 03	169 35	76 70			560 54
Repairs, extraordinary—Dredge								
" " Departmental tugs								
Rental of hired tugs								
Total expenditure—Dredge	732 93	2,533 43	1,249 77	2,431 74	1,101 48			8,049 35
Total expenditure—Departmental tugs	366 73	1,267 67	625 35	1,216 81	551 15			4,027 71
Total expenditure—Hired tugs								
Total—Complete expenditure	1,099 66	3,801 10	1,875 12	3,648 55	1,652 63			12,077 06
Cubic yards removed	4,956	23,677	7,493	19,198	11,460			66,784
Cost per cubic yard (calculated from total expenditure)	22·20c.	16·00c.	25·00c.	19·00c.	14·42c.			18·08c
Cost per hour actually dredging	$13·57½	$9·67¼	$13·89	$10·48½	$8·65			$10·53
Kind of material	Mud	Mud, sand clay and rock.	Clay, sand and boulders.	Clay, sand and boulders.	Mud, clay and gumbo.			
Work commenced	April 24.	May 12.	July 16.	Aug. 13.	Oct. 9.			
Work completed	May 6.	July 10.	Aug. 9.	Oct. 7.	Nov. 1.			

DISTRIBUTION OF TIME IN HOURS.

	H. M'	% of total.	H. M	% of total.	H. M.	% of total.	H. M.	% of total.	H. M.	% of total.	—	—	H. M.	% of total.
Lost by storms and weather					72 00	45·00	104 00	46·00					176 00	23·00
" repairs	8 00	8·70	24 00	11·60	12 00	7·50	7 00	3·10	5 00	7·20			56 00	7·50
" coaling	5 30	6·00	11 00	5·30			3 00	1·30					19 30	2·50
" watering														
" tide and current														
" cleaning plant														
" cleaning boilers	14 00	15·20	27 00	13·10			5 00	2·20	5 00	7·20			51 00	7·00
" inspecting boilers	9 00	9·80											9 00	1·00
" holidays			20 00	9·70			10 00	4·40					30 00	4·00
" waiting on scows or tug			10 00	4·90	3 00	1·90							13 00	1·75
" waiting orders														
" towing and preparing for work	35 30	38·60	5 00	2·40	36 00	22·50	14 00	6·20	17 00	24·60			107 30	14·00
" moving dredge and changing cut			12 00	5·80			1 00	0·40					13 00	1·75
" short of coal or supplies	3 00	3·20											3 00	0·50
" fitting out and laying up plant	17 00	18·00	84 00	40·80	29 00	18·10	74 00	32·70	41 00	59·40			245 00	32·50
" miscellaneous			13 00	6·30	8 00	5·00	8 00	3·50	1 00	1·50			30 00	4·00
Total lost time	92 00	53·20	206 00	34·40	160 00	54·00	226 00	39·40	69 00	26·50			753 00	39·60
Time actually dredging	81 00	46·80	392 00	65·60	135 00	46·00	348 00	60·60	191 00	73·50			1147 00	60·40
Possible dredging time	173 00	100·00	598 00	100·00	295 00	100·00	574 00	100·00	260.00				1900 00	100·00

Names of Departmental Tugs included in expenditure, dates between which employed and localities.—Tug *Peguis*, employed continuously throughout the season on the dates and at the localities as above mentioned.

Date Dredge put in commission.—April 1. *Dredge laid up for winter at* Selkirk Slough, November 7, 1913.

MANITOBA—*Concluded.*

Departmental Dredge "Winnipeg No. 205," and Plant in Attendance.

	April.	May.	June.	July.	August.	September.	October.	November.	December.	January.	February.	March.	Totals.
Material handled, c. yds.	5,917	11,281	5,819	15,714	14,695	16,587	17,363						87,376
Kind of material	Clay & sand	Clay	Clay, sand, mud, stone gravel and rock.	Clay, sand, and mud.	Sand, mud, and stones.	Mud, sand, and clay.	Sand, mud, and gumbo						
Total possible dredging time	260 00	270 00	250 00	270 00	260 00	260 00	270 00	40 00					1,880 00
Hours actually dredging	72 00	126 00	186 00	189 30	183 00	192 30	210 00						1,159 00
Per hour, actually dredging, c. yds.	82 00	89 50	31 00	83 00	80 00	86 00	45 00						

DETAILS OF EXPENDITURE

	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.						$ cts.
Wages	581 31	812 50	810 00	795 00	794 99	774 99	795 00	107 31					5,471 10
Provisions	120 83	210 59	129 63	85 00	156 12	72 74	329 07	76 41					1,180 39
Fuel	211 76	191 65	717 59	654 70	239 97	444 53	255 53						2,715 73
Stores and equipment	435 54	94 96	36 01	37 55	26 79	94 14	16 15						741 14
Contingencies	8 75	8 00	8 00	6 75		5 40	14 81	62 00					113 71
Water													
Pilotage and towage													
Wharfage													
Rental hired tugs													
Repairs (inc. all items charged to D.V. rep'rs)	220 21	29 51	15 00	181 48	27 65	266 25	35 20	281 98	354 31	293 82	573 45	534 00	2,812 86
Repairs—Extraordin'y													
Totals	1,578 40	1,347 21	1,716 23	1,760 48	1,245 52	1,658 05	1,445 76	527 70	354 31	293 82	573 45	534 00	13,034 93

EXPENDITURE INCURRED WORKING AT

	Selkirk Slough.	Mouth of Red River.	Lockport.	Winnipeg.	Selkirk Marine Railway.	—	—	Totals.
	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.			$ cts.
Wages—Dredge	342 78	423 99	647 91	1,864 46	445 81			3,724 95
" Departmental tugs	160 68	198 77	303 72	874 00	208 98			1,746 15
Provisions—Dredge	72 42	89 58	136 87	393 88	94 18			786 93
" Departmental tugs	36 21	44 79	68 43	196 94	47 09			393 46
Fuel—Dredge	166 61	206 09	314 91	906 21	216 68			1,810 50
" Departmental tugs	83 30	103 04	157 45	453 10	108 34			905 23
Stores and equipment—Dredge	45 47	56 24	85 94	247 32	59 13			494 10
" " Departmental tugs	22 73	28 12	42 97	123 66	29 56			247'04
Contingencies—Dredge	6 97	8 63	13 19	37 95	9 07			75 81
" Departmental tugs	3 49	4 31	6 59	18 97	4 54			37 90

Water—Dredge								
" Departmental tugs								
Pilotage and towage—Dredge								
" " Departmental tugs								
Wharfage—Dredge								
" Departmental tugs								
Repairs—Dredge	172 56	213 46	326 17	938 62	224 43			1,875 24
" Departmental tugs	86 28	106 73	163 09	469 30	112 22			937 62
Repairs, extraordinary—Dredge								
" " Departmental tugs								
Rental of hired tugs								
Total expenditure—Dredge	806 81	997 99	1,524 99	4,388 44	1,049 30			8,767 53
Total expenditure—Departmental tugs	392 69	485 76	742 25	2,135 97	510 73			4,267 40
Total expenditure—Hired tugs								
Total—Complete expenditure	1,199 50	1,483 75	2,267 24	6,524 41	1,560 03			13,034 93
Cubic yards removed	8,924	10,990	3,103	50,973	13,386			87,376
Cost per cubic yard (calculated from total expenditure)	13·44 cts.	13·50 cts.	73 cts.	12·8 cts.	11·65 cts.			14·92 cts.
Cost per hour actually dredging	$11.99½	$11 77½	$14·35	$10.75	$9 28½			$11 24¼
Kind of material	Clay and sand	Clay and sand	Mud, stone, gravel & rock.	Clay, sand and mud.	Gumbo & hard clay.			
Work commenced	April 18	May 15	June 9	July 3	Oct. 9			
Work completed	May 6	June 5	July 1	Oct. 7	Oct. 30			

DISTRIBUTION OF TIME IN HOURS.

—	H. M.	% of total.	H. M.	% of total.	H. M.	% of total.	H. M	% of total.	H. M	% of total.	—	—	H. M	% of total.
Lost by storms and weather			22 00	25·00			10 00	3·00					32 00	4·50
" repairs	20 00	27·40					58 30	17·50	1 00	1·80			79 30	11·00
" coaling	3 00	4·10			6 30	3·80	24 30	7·40	6 00	10·50			40 00	5·50
" watering														
" tide and current					60 00	35·50							60 00	8·25
" cleaning plant														
" cleaning boilers	4 00	5·50	10 00	11·40	8 00	4·70	62 00	18·60	5 00	8·80			89 00	12·25
" inspecting boilers	14 00	19·20											14 00	2·00
" holidays			10 00	11·40	10 00	5·90	10 00	3·00					30 00	4·00
" waiting on scows or tug	5 00	6·90	2 00	2·30	1 00	0·60	2 00	0·60					10 00	1·25
" waiting on orders							8 30	2·60					8 30	1·00
" towing and preparing for work	4 00	5·50	10 00	11·40	30 00	17·80	17 00	5·10	19 00	33·30			80 00	11·00
" moving dredge and changing cut	5 00	6·90	2 00	2·30	3 00	1·80	14 30	4·30					24 30	3·25
" short of coal or supplies														
" getting out and laying up plant	18 00	24·70	24 00	27·30	37 00	21·90	105 00	31·40	25 00	44·00			209 00	29·00
" miscellaneous			8 00	9·10	13 30	8·00	22 00	6·60	1 00	1·80			44 30	6·00
Total lost time	73 00	42·20	88 00	41·10	169 00	51·70	334 00	35·50	57 00	25·30			721 00	38·40
Time actually dredging	100 00	57·80	126 00	58·90	158 00	48·30	607 00	64·50	168 00	74·70			1,159 00	61·60
Possible dredging time	173 00		214 00		327 00		941 00		225 00				1,880	

Names of Departmental Tugs included in expenditure, dates between which employed, and localities:—Tug *Friday*, employed continuously throughout the season on the dates and at the localities as above mentioned.

Date Dredge put in commission—April 1, 1913. *Dredge laid up for winter at* Selkirk Slough, November 5, 1913.

ALBERTA.

Departmental Dredge "No. 206 Athabaska," and Plant in Attendance.

	April.	May.	June.	July.	August.	September.	October.	November.	December.	January.	February.	March.	Totals.
Material handled, c.yds		2,428	5,353	4,788	6,257	5,743							24,569
Kind of material		Sand	Sand and Gumbo.	Gumbo	Gumbo	Gumbo							
Total possible dredging time		150 00	250 00	270 00	260 00	260 00	130 00						1,320 00
Hours actually dredging		71 0	141 00	120 00	171 00	142 00							645 50
Per hour actually dredging ... c. yds.		33 90	37 90	39 90	36 50	40 40							

DETAILS OF EXPENDITURE.

	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	cts.	$ cts	$ cts.	$ cts
Wages	103 35	336 99	375 00	366 25	475 00	375 00	229 33	45 00	45 00	45 00	45 00	45 00	2,485 92
Provisions	65 70	279 27	196 85	171 64	202 25	182 48	82 26	9 50	11 70	21 65	12 25	15 00	1,250 55
Fuel	8 70								600 00				608 70
Stores and equipment	31 60	12 25											186 20
Contingencies		89 55				6 25	78 85			13 00	129 35		174 65
Water													
Pilotage and towage													
Wharfage													
Rental hired tugs													
Repairs (inc. all items charged to D.V. rep'rs)		22 40	109 70	55 97	78 40	55 50	156 62		5 75	618 42	119 80	2 05	1,224 61
Repairs, extraordinary													
Totals	209 35	740 46	681.55	593 86	755 65	619 23	547 06	54 50	662 45	698 07	306 40	62 05	5,930 63

EXPENDITURE INCURRED WORKING AT

	Grouard.	—	—	—	—	—	—	—	Totals.
Wages—Dredge	$ cts. 2,485 92								$ cts. 2,485 92
" Departmental tugs									
Provisions—Dredge	1,250 55								1,250 55
" Departmental tugs									
Fuel—Dredge	608 70								608 70
" Departmental tugs									
Stores and equipment—Dredge	186 20								186 20
" " Departmental tugs									
Contingencies—Dredge	174 65								174 65
" Departmental tugs									
Water—Dredge									
" Departmental tugs									

| | | |

SASKATCHEWAN.

Departmental Dredge "207," and Plant in Attendance.

—	April.	May.	June.	July.	August.	September.	October.	November.	December.	January.	February.	March.	Totals.
Material handled, c.yds.		32	4,480	3,534	6,895	5,026							19,967
Kind of material		Clay	Clay	Clay	Clay	Clay							
Total possible dredging time		60 00	250 00	270 00	260 00	260 00							1,100 00
Hours actually dredging		2 00	104 00	78 00	123 00	95 30							402 30
Per hour, actually dredging c. yds.		16·00	43·00	45·00	56·00	52·00							

Details of Expenditure.

	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Wages	395 48	706 55	700 00	695 50	696 39	705 00	50 00	50 00	50 00	50 00	50 00	50 00	4,198 92
Provisions	158 72	158 07	131 38	193 42	175 35	142 05							958 99
Fuel			379 26		366 45								745 71
Stores and equipment	30 87			11 45									42 32
Contingencies	22 65	35 20	20 30	40 30	16 45	37 42	17 20					270 05	459 57
Water													
Pilotage and towage													
Wharfage													
Rental hired tugs													
Repairs (inc. all items charged to D.V.rep'rs)	20 00	22 00	54 95	291 34	8 75	66 88						206 88	670 80
Repairs—Extraordin'y						245 00							245 00
Totals	627 72	921 82	1,285 89	1,232 01	1,263 39	1,196 35	67 20	50 00	50 00	50 00	50 00	526 93	7,321 31

Expenditure Incurred Working at Valeport, Last Mountain Lake, Sask.

—	Valeport (207).	Ft. Qu'Appelle	—	—	—	—	—	Totals.
	$ cts.	$ cts.						$ cts.
Wages—Dredge	2,887 10							2,887 10
" Departmental tugs	1,311 82							1,311 82
Provisions—Dredge	610 26							610 26
" Departmentul tugs	348 73							348 73
Fuel—Dredge	375 71							375 71
" Departmental tugs	370 00							370 00
Stores and equipment—Dredge	28 21							28 21
" " Departmental tugs	14 11							14 11
Contingencies—Dredge	403 06							403 06
" Departmental tugs	56 51							56 51
Water—Dredge								
" Departmental tugs								

Pilotage and towage—Dredge												
" " Departmental tugs												
Wharfage—Dredge												
" Departmental tugs												
Repairs—Dredge	317 38	206 88									524 26	
" Departmental tugs	146 54										146 54	
Repairs, extraordinary—Dredge	245 00										245 00	
" " Departmental tugs												
Rental of hired tugs												
Total expenditure—Dredge	4,866 72	206 88									5,073 60	
Total expenditure—Departmental tugs	2,247 71										2,247 71	
Total expenditure—Hired tugs												
Total—Complete expenditure	7,114 43	206 88									7,321 31	
Cubic yards removed	19,967										19,967	
Cost per cubic yard (calculated from total expenditure)	35·6c.										35 70	
Cost per hour actually dredging	$17 68										18 18	
Kind of material	Clay											
Work commenced	May 26.											
Work completed	Sept. 30.											

DISTRIBUTION OF TIME IN HOURS.

	H. M.	% of total.	—	—	—	—	—	—	H. M.	% of total.
Lost by storms and weather	457 00	41·50							457 00	41·50
" repairs	92 00	8·40							92 00	8·40
" coaling	27 45	2·50							27 45	2·50
" watering										
" tide and current										
" cleaning plant	7 00	0·60							7 00	0·60
" cleaning boilers	14 00	1·30							14 00	1·30
" inspecting boilers										
" holidays, July 1	10 00	1·00							10 00	1·00
" waiting on scows or tug	24 00	2·20							24 00	2·20
" waiting orders										
" towing and preparing for work	22 45	2·00							22 45	2·00
" moving dredge and changing cut	3 00	0·30							3 00	0·30
" short of coal or supplies	3 00	0·30							3 00	0·30
" miscellaneous	37 00	3·30							37 00	3·30
Total lost time	697 30	63·40							697 30	63·40
Time actually dredging	402 30	36·60							402 30	36·60
Possible dredging time	1100 00	100·00							1100 00	100·00

Names of Departmental Tugs included in expenditure, dates between which employed, and localities.—Tug *Ruby*, May 26, 1913 to September 30, 1913 at Last Mountain Lake (Valeport, etc.)
Date Dredge put in commission.—May 26, 1913. *Dredge laid up for winter at*, Valeport, Sask., September 30, 1913

BRITISH COLUMBIA.

Departmental Dredge "Ajax 301," and Plant in Attendance.

	April.	May.	June.	July.	August.	September.	October.	November.	December.	January.	February.	March.	Totals.
Material handled, c.yds.	.....	21,932	31,515	29,755	32,615	46,710	38,475	3,190	.....	10,470	28,865	33,230	276,757
Kind of material	.....	Hardpan....	Rock.....	Boulders....	Clay and gravel..	Quicksand and clay.	Rock, sand, mud and clay.	Quicksand..	.....	Rock, sand, and clay.	Rock, sand, and clay.	Rock, sand, gravel and clay.	.....
Total possible dredging time	229 00	424 00	419 00	460 00	425 00	430 30	460 00	260 00	229 00	433 30	420 00	460 00	4,650 00 (not including holidays
Hours actually dredging	.....	226 00	216 25	245 75	224 50	276 50	274 75	30 00	.....	168 50	304 00	298 75	2,265 00
Per hour, actually dredging.....c. yds.	.....	97 00	145 00	121 00	148·00	168·70	140·00	106·30	.....	64·20	94·90	111·20	.....

DETAILS OF EXPENDITURE.

	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Wages—Dredge	1,735 00	1,725 28	1,833 90	1,858 74	1,877 18	1,866 66	1,842 39	1,750 24	1,714 40	1,842 00	1,874 40	2,000 94	21,930 13
" Tug	673 75	701 27	851 62	750 95	767 25	690 00	706 59	975 00	736 45	801 40	965 37	975 00	9,594 65
Provisions—Dredge	742 25	755 47	949 89	860 86	891 04	928 22	862 82	713 30	662 42	595 68	539 96	613 86	9,115 77
Tug	92 53	.....	207 89	11 55	123 03	.....	45 29	276 26	114 15	17 79	234 13	254 28	1,376 90
Fuel—Dredge	793 50	1,351 00	.....	2,802 12	.....	2,615 55	.....	.....	425 25	526 25	317 50	966 25	9,797 42
" Tug	81 00	150 00	.....	150 00	.....	112 50	150 00	.....	280 00	435 00	12 00	747 75	2,118 25
Stores and equipment—Dredge	466 98	436 78	660 23	243 48	148 09	688 48	310 92	632 74	210 09	534 81	919 61	832 17	6,084 38
Tug	38 67	26 10	191 84	441 30	43 87	204 08	86 11	262 98	482 87	179 37	37 26	48 86	2,043 31
Contingencies—Dredge	98 08	19 85	1 30	59 95	2,250 95	52 05	232 50	10 00	1 50	414 60	32 19	780 24	3,953 21
Tug	11 60	2 35	1 50	55 65	.....	4 25	72 50	.....	.....	2 00	168 00	36 00	353 85
Water—Dredge	8 55	8 55	15 05	8 35	15 05	17 80	14 85	15 60	21 70	16 75	12 55	19 00	174 00
" Tug	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Rental, hired tug	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Repairs—Dredge	1,607 19	595 68	32 16	8,203 69	1,887 55	1,698 64	338 21	749 05	4,745 28	.....	7,881 39	3,873 01	31,611 85
" Tug	.....	94 22	445 37	.....	96 25	.....	.....	.....	491 43	.....	1,467 03	2,012 70	4,607 00
Repairs, extraordinary—Dredge	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Tug	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals—Dredge	5,451 55	4,892 61	3,492 53	14,037 39	7,069 86	7,867 40	3,601 69	3,879 93	7,780 64	3,930 09	11,577 60	9,085 47	82,666 76
" Tug	897 55	973 94	1,698 22	1,409 45	1,030 40	1,010 83	1,060 49	1,514 24	2,104 90	1,435 56	2,883 79	40,74 59	20,093 96

EXPENDITURE INCURRED WORKING AT

—	Victoria, B.C.	—	—	—	—	—	—	Totals.
Wages—Dredge	21,930 13	.....	.....	.....	.....	.....	.....	21,930 13
" Departmental tugs	9,594 65	.....	.....	.....	.....	.....	.....	9,594 65
Provisions—Dredge	9,115 77	.....	.....	.....	.....	.....	.....	9,115 77
" Departmental tugs	1,376 90	.....	.....	.....	.....	.....	.....	1,376 90
Fuel—Dredge	9,797 42	.....	.....	.....	.....	.....	.....	9,797 42
" Departmental tugs	2,118 25	.....	.....	.....	.....	.....	.....	2,118 25
Stores and equipment—Dredge	6,084 38	.....	.....	.....	.....	.....	.....	6,084 38
" " Departmental tugs	2,043 31	.....	.....	.....	.....	.....	.....	2,043 31

Contingencies—Dredge	3,953 21							3,953 21
" Departmental tugs	353 85							353 85
Water—Dredge	174 00							174 00
" Departmental tugs								
Pilotage and towage—Dredge								
" " Departmental tugs								
Wharfage—Dredge								
" Departmental tugs								
Repairs—Dredge	31,611 85							31,611 85
" Departmental tugs	4,607 00							4,607 00
Repairs, extraordinary—Dredge								
" " Departmental tugs								
Rental of hired tugs								
Total expenditure—Dredge	82,666 76							
Total expenditure—Departmental tugs	20,093 96							20,093 96
Total expenditure—Hired tugs								
Total—Complete expenditure	102,760 72							102,760 72
Cubic yards removed	276,757							276,757
Cost per cubic yard (calculated from total expenditure)	$0·37							$0·37
Cost per hour actually dredging	$45·368							$45·368
Kind of material	Hardpan, rock, clay, etc.							
Work Commenced	April 1913							
Work completed	Still dredging.							

DISTRIBUTION OF TIME IN HOURS.

	H. M.	% of total.	—	—	—	—	—	—	H. M.	% of total.
Lost by storms and weather	143 45	2·98							143 45	2·98
" repairs	859 00	17·90							859 00	17·90
" coal fuel	107 15	2·23							107 15	2·23
" oil fuel	16 15	0·34							16 15	0·33
" watering										
" tides and current	67 15	1·40							67 15	1·40
" cleaning plant	5 45	0·12							5 45	0·12
" cleaning boilers	101 00	2·10							101 00	2·10
" inspecting boilers										
" holidays	147 30	3·07							147 30	3·07
" waiting on scows or tug	115 30	2·40							115 30	2·40
" waiting orders										
" towing and preparing for work	32·45	0·77							32·45	0·77
" moving dredge and changing cut	50 00	1·04							50 00	1·04
" short of coal or supplies										
" fog	10 30	0·22							10 30	0·22
" general overhaul and oil installation	425 00	8·80							425 00	8·80
" miscellaneous	451 00	9·40							451 00	9·40
Total lost time	2,532 30	52·80							2,532·30	52·80
Time actually dredging	2,265 00	47·20							2,265 00	47·20
Possible dredging time	4,797 30	100·00							4,797 30	100·00

Names of Departmental tugs included in expenditure, dates between which employed, and localities:—Tug *Petrel*, tending Dredge *Ajax*, April to October, also December and January. Tug *Point Ellice*, tending Dredge *Ajax*, November, February, March.

Remarks.—General overhaul and oil installation at British Columbia Marine Wharf, Victoria, November 5, 1913, to January 5, 1914.

BRITISH COLUMBIA—*Continued.*

Departmental Dredge "Bittern 302," and Plant in Attendance.

	April.	May.	June.	July.	August.	September.	October.	November.	December.	January.	Febraury.	March.	Totals.
Material handled, c.yds	4,103	5,805	1,215		7,290	3,890	5,705	4,630	4,175	9,070	5,805	6,615	57,703
Kind of material	Hardpan and sand.	Sand and silt.	Sand and silt		Sand and silt.	Sand and hardpan.	Sand and hardpan.	Sand and hardpan.	Gravel and sand.	Sand	Sand	Sand	
Total possible dredging time	234 00	234 00	54 00		234 00	225 00	234 00	225 00	234 00	234 00	216 00	234 00	2,358 00
Hours actually dredging	158 00	162 00	41 00		189 00	122 00	158 00	201 00	155 00	197 00	165 00	171 00	1,719 00
Per hour, actually dredging c. yds	26	36·8	22·5		31·1	32	32·3	23	26·6	46·0	35·2	35·8	

DETAILS OF EXPENDITURE.

	$ cts	$ cts.	$ cts.	$ cts	$ cts	$ cts	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts
Wages	575 00	575 00	315 99	276 59	574 99	578 00	593 86	575 00	575 00	575 00	575 00	573 54	6,362 97
Provisions	168 00	57 36	118 89	73 14	186 00	199 60	199 45	180 00	184 00	186 00	171 50	198 10	1,922 74
Fuel		204 74				190 53			186 00			229 19	810 64
Stores and equipment	133 08	25 00	68 15			12 55	176 52	119 38	108 24	161 73	15 34	154 30	961 74
Contingencies			4 00							10 40	12 40	7 55	46 90
Water													
Pilotage and towage					136 00	56 00				126 34			318
Wharfage													
Rental hired tugs					410 00		405 00		249 75	702 00	621 00	702 00	3,089 75
Repairs (inc. all items charged to D.V. rep'rs)	18 00	17 90	5 90		5 00	20 65	2 75			7 44			77 64
Repairs, extraordinary	78 75	12 70	68 73	1,370 12	73 55	688 64							2,292 49
Totals	973 03	892 70	581 66	1,719 85	1,385 54	1,745 97	1,377 58	874 38	1,303 67	1,768 91	1,395 24	1,864 68	15,883 21

EXPENDITURE INCURRED WORKING AT

	Kootenay Landing.	Nelson Harbour	Cedar Creek.	Kaslo.	Riondel.			Totals.
Wages—Dredge	$ cts 2,937 60	$ cts 1,846 80	$ cts 996 30	$ cts 488 70	$ cts 97 20			$ cts 6,362 97
" Departmental tugs	892 16	560 88	302 58	148 42	29 52			1,922 74
Provisions—Dredge								
" Departmental tugs	380 80	239 40	129 15	63 34	12 60			810 64
Fuel—Dredge								
" Departmental tugs	446 08	280 44	151 29	74 21	14 76			961 74
Stores and equipment—Dredge								
" " Departmental tugs	21 76	13 68	7 38	3 62	72			46 90
Contingencies—Dredge								
" Departmental tugs								
Water—Dredge								
" Departmental tugs								

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BRITISH COLUMBIA—*Continued.*

Departmental Dredge "Fruhling 303," and Plant in Attendance.

	April.	May.	June.	July.	August.	September.	October.	November.	December.	January.	February.	March.	Totals.
Material handled, c.yds	31,200	64,800	72,000	84,400	57,600	53,600	139,200	122,400	107,400	54,400	18,400	113,200	918,600
Kind of material	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total possible dredging time	229	233·5	210	229	224·5	293	460	425	460	447·25	421·5	460·5	4,093·75 Not including holidays
Hours actually dredging	43·5	84·25	71·75	88·25	71	91·5	238·5	244	252·5	124·25	85·75	331·50	1,726·75
Per hour, actually dredging.....c. yds.	717	769	1,003	956	811	586	583·6	501·6	425·3	437·8	214·4	341·4	.....

DETAILS OF EXPENDITURE.

	April.	May.	June.	July.	August.	September.	October.	November.	December.	January.	February.	March.	Totals.
	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Wages	1,343 49	1,392 77	1,375 05	1,338 16	1,378 17	1,540 48	2,073 74	2,082 30	2,066 28	2,073 25	2,080 30	2,098 06	20,842 05
Provisions	352 50	454 45	414 91	558 32	435 99	588 45	542 97	654 83	501 09	458 23	503 36	483 40	5,948 50
Fuel	105 00	1,239 08	1,055 10	1,241 50	650 00	888 13	1,361 00	1,400 27	1,602 30	774 00	1,283 87	1,600 45	14,100 70
Stores and equipment	223 54	176 12	245 50	88 76	297 68	470 16	246 53	332 67	451 61	106 49	261 78	1,283 70	4,184 54
Contingencies	1 20	.....	.....	16 85	13 13	97 25	941 30	17 98	815 50	17 28	104 51	1,717 44	3,742 44
Water	.....	.....	.....	.....	22 32	.....	.....	.....	19 72	20 30	.....	14 82	77 16
Pilotage and towage	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Wharfage	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Rental hired tugs	.....	.....	.....	.....	.....	.....	.....	290 00	.....	.....	.....	.....	290 00
Repairs (inc. all items charged to D.V.rep'rs)	380 47	517 96	627 64	.....	.....	8,529 25	963 42	187 03	963 83	.....	3,111 17	514 25	15,705 02
Repairs—Extraordin'y.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals	2,406 20	3,780 38	4,618 20	3,243 59	2,797 29	12,113 72	6,128 96	4,965 08	6,420 33	3,449 55	7,344 99	7,712 12	64,980 41

EXPENDITURE INCURRED WORKING AT FRASER RIVER SAND HEADS.

	—	—	—	—	—	—	—	Totals.
	$ cts.							$ cts.
Wages—Dredge	20,842 05	.....	.....	.....	.....	.....	.....	20,842 05
" Departmental tugs	.....	.....	.....	.....	.....	.....	.....	.....
Provisions—Dredge	5,948 50	.....	.....	.....	.....	.....	.....	5,948 50
" Departmental tugs	.....	.....	.....	.....	.....	.....	.....	.....
Fuel—Dredge	14,100 70	.....	.....	.....	.....	.....	.....	14,100 70
" Departmental tugs	.....	.....	.....	.....	.....	.....	.....	.....
Stores and equipment—Dredge	4,184 54	.....	.....	.....	.....	.....	.....	4,184 54
" " Departmental tugs	.....	.....	.....	.....	.....	.....	.....	.....
Contingencies—Dredge	3,742 44	.....	.....	.....	.....	.....	.....	3,742 44
" Departmental tugs	.....	.....	.....	.....	.....	.....	.....	.....
Water—Dredge	77 16	.....	.....	.....	.....	.....	.....	77 16
" Departmental tugs	.....	.....	.....	.....	.....	.....	.....	.....

Pilotage and towage—Dredge									
" " Departmental tugs									
Wharfage—Dredge									
" Departmental tugs									
Repairs—Dredge	15,795 02								15,795 02
" Departmental tugs									
Repairs, extraordinary—Dredge									
" " Departmental tugs									
Rental of hired tugs	290 00								290 00
Total expenditure—Dredge									
Total expenditure—Departmental tugs									
Total expenditure—Hired tugs									
Total—Complete expenditure	64,980 41								64,980 41
Cubic yards removed	918,600								918,600
Cost per cubic yard (calculated from total expenditure)	$0·07								$0·07
Cost per hour actually dredging	$37 63								$37.63
Kind of material	Sand and silt								
Work commenced	April 1, 1913								
Work completed	Still dredging								

DISTRIBUTION OF TIME IN HOURS.

	Hours.	% of total.	—	—	—	—	—	—	Hours.	% of total.
Lost by storms and weather	270 75	6·40							270 75	6·40
" repairs	830 75	19·80							830 75	19·80
" coaling	48 50	1·10							48 50	1·10
" oil fuel	46 75	1·00							46 75	1·00
" watering										
" tide and current	73 25	1·70							73 25	1·7
" cleaning plant										
" cleaning boilers										
" inspecting boilers										
" holidays	85 50	2·40							85 50	2·40
" discharging	413 50	9·80							413 50	9·80
" waiting orders										
" towing and preparing for work										
" moving dredge and changing cut	325 75	7·60							325 75	7·60
" short of coal	9 50	0·20							9 50	0·20
" fog	61 75	1·50							61 75	1·50
" oil installation	200 50	4·70							200 50	4·70
" miscellaneous	86 00	2·50							86 00	2·50
Total lost time	2452 50	58·70							2452 50	58·70
Time actually dredging	1726 75	41·30							1726 75	41·30
Possible dredging time	4179 25	100·00							4179 25	100·00

Names of Rented Tugs included in expenditure, dates between which employed, and localities.—Tug *B. C. Boy*, employed in November towing fuel oil from Vancouver to Fraser River.
Remarks.—Night shift commenced September 22, 1913. Oil installation, August 25, 1913, to September 20, 1913.

YALE-CARIBOO DISTRICT, B.C.

Departmental Dredge "Heron 304" and Plant in Attendance.

	April	May.	June.	July.	August, 13th to 31st.	September.	October.	November.	December.	January.	February.	March.	Totals
Material handled, c. yds.					2,048½	1,834	1,825	1,974					
Kind of material	Dredge *Heron* and pile driver outfit employed on Okanagan River improvement work from 1st April to 14th August				Sand.	Sand at Penticton, clay and boulders at Summerland.	Hard clay and boulders	Hard clay and boulders.	From 5th Dec. to 22nd Jan., Capt. McDonald and crew building extension to Okanagan Mission Wharf		Dredge laid up at Penticton for general repairs.		
Total possible dredging time					144 00	234 00	213 00	225 00	36 00	81 00	216 00	234 00	1,413 00
Hours actually dredging					107 00	104 00	132 00	98 30					442 00
Per hour actually dredging c. yds.					19·10	17·60	13·80	20·00					

Details of Expenditure.

													for 3 mths
Wages										$ cts.	$ cts.	$ cts.	$ cts.
Provisions											137 00	446 95	883 95
Fuel													
Stores and equipment										2 90	483 84		486 74
Contingencies										4 00	34 25		38 25
Water													
Pilotage and towage													
Wharfage													
Rental hired tugs													
Repairs (inc. all items charged to D.V. rep'rs)													
Repairs—Extraordin'y												118 12	118 12
Totals										6 90	955 09	565 07	1,527 06

Expenditure Incurred Working at

		Penticton.	—	—	—	—	—	Totals.
Wages—Dredge		$ cts. 883 95						$ cts. 883 95
" Departmental tugs								
Provisions—Dredge								
" Departmental tugs								
Fuel—Dredge								
" Departmental tugs								
Stores and equipment—Dredge		486 74						486 74
" " Departmental tugs								
Contingencies—Dredge		38 25						38 25
" Departmental tugs								

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BRITISH COLUMBIA—*Continued.*

Departmental Dredge "King Edward 305," and Plant in Attendance.

—	April.	May.	June.	July.	August.	September.	October.	November.	December.	January.	February.	March.	Totals.
Material handled, c.yds	64,810	52,195	67,780	66,850	24,865	51,585	22,100	16,355	.....	.....	30,530	24,355	421,425
Kind of material	Silt.....	Silt, gravel and sand.	Silt.....	Sand.....	Sand.....	Sand, mud and clay.	Mud and clay.	Mud and clay.	.....	.....	Mud and clay.	Mud and clay.	.....
Total possible dredging time	231 50	241 00	209 50	229 00	232 50	251 50	234 00	223 00	229 00	233 50	210 00	244 25	2,768 75 Not including holiday
Hours actually dredging	121 00	119 50	141 00	161 25	66 00	95 50	41 75	43 50	.....	.....	45 25	42 75	877 50
Per hour, actually dredging, c. yds	641·00	437·00	481·00	414·00	377·00	540·00	529·30	375·90	.....	.....	674·60	569·70	.....

Details of Expenditure.

	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts
Wages—Dredge	1,303 75	1,397 03	1,341 17	1,383 37	1,398 97	1,547 03	1,422 05	1,411 01	1,356 13	1,330 00	1,331 05	1,390 82	16,612 38
" Tug	202 20	211 30	202 22	211 28	212 90	237 76	217 20	213 32	200 00	200 00	200 00	305 38	2,613 56
Provisions—Dredge	267 12	421 24	407 66	407 93	368 24	412 14	410 15	376 03	425 08	430 12	381 18	307 58	4,614 47
" Tug	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Fuel—Dredge	19 00	225 00	2,106 00	1,228 50	1,325 00	1,244 50	1,050 00	424 00	.....	577 30	634 25	287 55	9,121 10
" Tug	151 20	96 71	176 85	144 51	109 39	87 14	92 24	90 18	.....	.....	.....	.....	948 19
Stores and Equipment—Dredge	313 28	90 31	166 93	212 76	243 78	477 13	331 08	230 37	175 53	544 43	502 67	252 36	3,540 65
" " Tug	27 14	18 35	17 13	1 10	26 78	90	45 47	8 95	13 40	52 42	153 37	99 50	464 51
Contingencies—Dredge	394 05	21 50	15 06	92 74	44 34	24 10	13 04	4 35	13 10	358 85	40 44	335 38	1,356 95
" Tug	4 00	.....	1 50	270 35	.....	15 75	.....	.....	.....	.....	11 92	1 70	305 22
Water—Dredge	.....	2 50	5 00	.....	6 00	2 50	.....	2 50	.....	.....	.....	18 54	37 04
" Tug	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Rental, hired tug	.....	.....	.....	.....	.....	75 00	.....	.....	.....	.....	.....	.....	75 00
Repairs—Dredge	25 40	309 30	321 03	11 49	934 98	3,138 81	105 71	30 00	703 10	.....	2,369 47	49 18	7,986 98
" Tug	.....	.....	.....	.....	29 75	259 35	.....	.....	.....	.....	.....	261 17	561 76
Repairs, extraordinary —Dredge	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
" " Tug	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals—Dredge	2,322 60	2,466 88	4,362 85	3,325 30	4,321 31	6,921 23	3,332 03	2,478 26	2,672 94	3,240 70	5,259 06	2,641 41	43,344 57
Totals—Tug	384 54	326 36	397 70	638 73	378 79	600 90	354 91	312 45	213 40	252 42	365 29	667 75	4,893 24

Expenditure Incurred Working at

—	Hatzic.	Lulu Island Bridge.	Steveston Dredging Chart No. 4.	Sand Heads.	Ladner.	Mission.	Oil Installation.	Sand Heads, Second Cut.	Totals.
	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Wages—Dredge	382 09	315 03	5,614 99	4,070 03	199 35	182 73	3,488 60	2,358 96	10,612 38
" Departmental tugs	60 11	49 66	883 38	640 32	31 36	28 75	548 85	371 13	2,613 56
Provisions—Dredge	106 13	87 68	1,559 69	1,130 55	55 37	50 76	969 04	655 25	4,614 47
" Departmental tugs	.....	.....	.....	.....	.....	.....	.....	.....	.....
Fuel—Dredge	209 79	173 30	3,082 93	2,234 67	109 45	100 33	1,915 43	1,295 20	9,121 10
" Departmental tugs	21 81	18 01	320 49	232 31	11 38	10 43	199 12	134 64	948 19
Stores and equipment—Dredge	81 43	67 27	1,196 74	867 46	42 49	38 95	743 54	502 77	3,540 65

" " Departmental tugs	10 68	8 83	157 00	113 81	5 57	5 11	97 55	65 96	464 51
Contingencies—Dredge	31 21	25 78	458 65	332 45	16 28	14 93	284 96	192 69	1,356 95
" Departmental tugs	7 02	5 80	103 16	74 78	3 66	3 36	64 10	43 34	305 22
Water—Dredge	85	70	12 52	9 07	45	41	7 78	5 26	37 04
" Departmental tugs									
Pilotage and towage—Dredge									
" " Departmental tugs									
Wharfage—Dredge									
" Departmental tugs									
Repairs—Dredge	183 70	151 74	2,699 61	1,956 81	95 85	87 86	1,677 26	1,134 15	7,986 98
" Departmental tugs	12 92	10 67	189 88	137 64	6 73	6 18	117 98	79 77	561 76
Repairs, extraordinary—Dredge									
" " Departmental tugs									
Rental of hired tugs				75 00					75 00
Total expenditure—Dredge	995 20	822 11	14,625 12	10,601 04	519 25	475 97	9,086 60	6,144 28	43,269 57
Total expenditure—Departmental tugs	112 54	92 97	1,653 91	1,198 85	58 71	53 83	1,027 59	694 84	4,893 24
Total expenditure—Hired tugs				75 00					75 00
Total—Complete expenditure	1,107 74	915 08	16,279 03	11,874 89	577 96	529 80	10,114 19	6,839 12	48,237 81
Cubic yards removed	27,525	2,565	239,435	84,125	8,100	4,790		54,885	421,425
Cost per cubic yard (calculated from total expenditure	$0·04	$0·356	$0·067	$0·141	$0·071	$0·11		$0·124	$0·114
Cost per hour actually dredging	$22·06	$31·82	$31·60	$70·05	$35·56	$55·76		$77·71	$54·97
Kind of material	Silt	Sand & gravel	Sand and silt	Sand	Silt	Silt		Clay and silt	
Work commenced	March 20, 1913	May 20, 1913	April 9, 1913	August 21, 1913	October 8, 1913	April 11, 1913		February, 1914	
Work completed	April 8, 1913	May 26, 1913	August 20, 1913	November 21'13	October 11, 1913	June 11, 1913		still dredging	

DISTRIBUTION OF TIME IN HOURS.

	Hours.	% of total.	Hours.	% of total.	Hours.	% of total.	Hours.	% of total.	Hours.	% of total.	Hours.	% of total.	Hours.	% of total.	Hours.	% of total.	Hours.	% of total.
Lost by storms and weather					11 00	1·20	159 25	22·90	2 00	5·80					92 25	22·90	264 50	9·20
" repairs					124 00	13·20	133 25	19·20							5 00	1·20	262 25	9·20
" oil fuel					13 50	1·40	14 25	2·00	1 50	4·30					oil 1 00	0·30	30 25	1·00
" fog							19 25	2·70							11 75	2·90	31 00	1·00
" tide and current							1 00	0·10	4 00	11·60							5 00	0·20
" cleaning plant					1 50	0·20	3 00	0·20									4 50	0·10
" cleaning boilers					71 50	7·60	10 00	1·40									81 50	3 30
" inspecting boilers																		
" holidays					19 00	1·70	23 50	3 30					19 00	3·20			61 50	2·10
" waiting on scows or tug															13 00	3·20	13 00	0·50
" waiting orders																		
towing and preparing for work	11 50	17·80	16 25	29·20	65 50	7·00	84·50	12 20	3 50	10·10	8 00	27·10			24 50	6·00	213 75	7·50
" moving dredge & changing cut			6 25	11 30	12 75	1·40	73 75	10·60	5 50	15·90	8 00	27·10			37 00	9·20	143 25	5·00
" short of coal or supplies					10 00	1·10									9 75	2·40	19 75	0·80
" oil installation and general overhaul													573 50	96·80			573 50	20·30
" installing new dredge pump															106 50	26·50	106 50	3·70
" miscellaneous	2 50	3·90	1 25	7·60	114 25	12·10	2 75	0·40	1 75	5·10	4 00	13·60			13 00	3·20	142 50	5·00
Total lost time	14 00	21·70	26 75	48·11	443 00	45·20	524 50	75·50	18 25	52·90	20 00	67·80	592 50	100·00	313 75	78·10	1952 75	69·00
Time actually dredging	50 50	78·30	28 75	51·90	515 00	54·80	169 50	24·50	16 25	47·10	9 50	32·20			88 00	21·90	877 50	31·00
Possible dredging time	64 50	100·00	55 50	100·00	958 00	100·00	694 00	100·00	34 50	100·00	29 50	100·00	592 50	100·00	401 75	100·00	2830 25	100·00

Names of Departmental Tugs included in expenditure, dates between which employed, and localities.—Gasoline Tug *Point Garry* tending *King Edward*, April 1, 1913, to March 31, 1914.
Remarks.—November 22, 1913, to February 7, 1914, dredge at Esquimalt for general overhaul and installation of oil burners.

BRITISH COLUMBIA *Continued.*

Departmental Dredge "Mastodon 306," and Plant in Attendance.

	April.	May.	June.	July.	August.	September	October.	November.	December.	January.	February.	March.	Totals.
Material handled, c.yds.	37,800	65,740	57,680	72,760	13,520	112,060	95,840	92,560	80,920	60,580	63,140	87,620	840,220
Kind of material	Gravel.	Gravel and sand.	Gravel and sand.	Gravel...	Gravel.	Gravel. .	Gravel. . .	Gravel.	Gravel. .	Gravel and sand.	Gravel	Gravel	
Total possible dredging time . .	316 00	382 00	358 50	355 00	252 50	440 00	463 00	420 00	449 50	431 50	315 00	397 00	4,609 50 Not including holidays
Hours actually dredging	79 30	206 00	219 15	166 45	35 45	271 50	256 00	244 15	214 45	172 00	157 45	256 00	2,279 30
Per hour, actually dredging . . c yds	475·50	319·00	263·7	46·30	378·10	412·70	374·30	378·90	376·80	352·50	400·20	342·20	

DETAILS OF EXPENDITURE.

	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Wages—Dredge	2,884 91	2,972 16	2,980 46	3,051 67	3,047 09	3,054 83	3,065 78	3,082 16	3,077 09	3,283 70	3,095 00	3,123 54	36,718 36
" Tug	1,929 08	1,875 98	1,914 50	1,950 00	1,931 32	1,948 16	1,987 07	1,031 66	1,957 75	1,974 71	986 15	970 80	20,457 18
Provisions—Dredge	704 75	1,099 61	1,171 24	991 82	943 16	837 69	881 34	751 13	860 79	884 13	692 71	821 38	10,639 75
Tug	722 68	819 04	832 35	900 42	701 26	558 84	658 25	372 77	633 68	614 90	264 39	320 65	7,489 23
Fuel—Dredge	327 76	1,106 43	1,012 06	549 02	211 72	876 35	856 49	632 00	801 00	865 31	653 30	765 15	8,656 59
" Tug	510 49	616 76	641 39	552 25	516 00	1,167 63	1,150 40	512 91	419 65	408 29	317 25	428 82	7,241 84
Stores and equipment—													
Dredge	674 15	676 07	1,049 84	1,091 56	413 82	1,501 42	897 33	693 99	741 56	1,331 58	495 34	771 52	10,338 18
Tug	562 44	527 07	283 01	382 67	191 67	349 58	926 96	201 05	136 70	644 05	191 05	70 97	4,467 22
Contingencies—Dredge.	1,181 89	547 56	198 91	279 97	316 46	1,450 02	75 00	1,474 54	846 68	399 50	90 52	482 95	7,344 00
" Tug. .	35 00	349 40	105 00	30 00	37 85	248 80	18 65	79 50	30 86	651 06	2 00	.....	1,506 06
Water—Dredge.	9 00	28 50	8 75	9 00	3 00	.....	.....	.....	33 40	.....	.....	91 65	
" Tug . .	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Rental, hired tug . .	.....	172 50	.....	15 00	.....	.....	35 00	.....	.....	75 00	.....	.....	297 50
Repairs—Dredge.	18,448 96	2,706 01	2,384 39	615 38	13,067 89	935 08	1,479 31	3,030 07	445 02	.....	3,958 72	1,239 88	48,310 71
" Tug . .	224 68	540 19	19 38	.....	17 12	3,813 69	78 55	12 00	321 22	.....	1,084 05	70 34	6,781 22
Repairs, extraordinary—													
Dredge . .	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Tug	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Totals—Dredge .	24,231 42	9,308 84	8,805 65	6,603 42	18,003 14	8,655 39	7,290 25	9,663 89	6,805 54	6,839 22	8,985 59	7,204 39	122,396 74
Totals—Tug . .	3,984 37	4,728 44	3,795 63	3,905 34	3,395 22	8,086 70	4,819 88	2,209 89	3,499 86	4,292 05	3,444 89	1,861 58	48,024 75

EXPENDITURE INCURRED WORKING AT

	Victoria, B.C.	Sand Heads, Fraser River	1st Narrows, Vancouver.						Totals.
	$ cts.	$ cts.	$ cts.						$ cts.
Wages—Dredge	3,635 11	1,064 83	32,018 00						36,718 36
" Departmental tugs	2,025 26	593 25	17,838 67						20,457 18
Provisions—Dredge	1,053 33	308 55	9,277 87						10,639 75
" Departmental tugs	741 43	217 19	6,530 61						7,489 23
Fuel—Dredge	857 00	251 04	7,548 55						8,656 59
" Departmental tugs	716 94	210 01	6,314 89						7,241 84
Stores and equipment—Dredge	1,023 48	299 80	9,014 90						10,338 18
" " Departmental tugs	442 26	129 55	3,895 41						4,467 22

Contingencies—Dredge	727 05	212 97	6,403 98	....	7,344 00
" Departmental tugs	157 23	46 03	1,384 80		1,588 06
Water—Dredge	9 07	2 66	79 92		91 65
" Departmental tugs					
Pilotage and towage—Dredge					
" " Departmental tugs					
Wharfage—Dredge					
" Departmental tugs					
Repairs—Dredge	4,782 76	1,401 01	42,126 94		48,310 71
" Departmental tugs	671 35	196 65	5,913 22		6,781 22
Repairs, extraordinary—Dredge					
" " Departmental tugs					
Rental of hired tugs	29 46	8 62	259 42		297 50
Total expenditure—Dredge	12,087 81	3,540 87	106,470 56		122,099 24
Total expenditure—Departmental tugs	4,754 46	1,392 70	41,877 59		48,024 75
Total expenditure—Hired tugs	29 46	8 62	259 42		297 50
Total—Complete expenditure	16,871 73	4,942 19	148,607 57		170,421 49
Cubic yards removed	54,540	780	784,900		840,220
Cost per cubic yard (calculated from total expenditure)	$0·309	$6·33	$0·189		$0·202
Cost per hour actually dredging	$62·02	$380·17	$74·50		$74·76
Kind of material	Sand & gravel	Sand & gravel	Gravel		
Work commenced	May 14, 1913	Jan. 22, 1914	April 1, 1913		
Work completed	June 18, 1913	Jan. 31, 1914	Still dredging		

DISTRIBUTION OF TIME IN HOURS.

	H. M	% of total.	H. M	% of total.	H. M	% of total.		H. M	% of total.
Lost by storms and weather	19 50	4·20	78 00	55·90	95 15	2·20		192 45	4·00
" repairs	2 15	0·50			584 45	14·00		587 00	12·30
" oil fuel	20 15	4·30			95 00	2·20		115 15	2·40
" watering									
" tides and current					53 15	1·30		53 15	1·10
" cleaning plant					30 00	0·70		30 00	0·70
" cleaning boilers									
" inspecting boilers					105 00	2·50		105 00	2·50
" holidays	40 00	8·50			110 30	2·70		150 30	3·20
" waiting on scows or tugs	2 45	0·60			203 30	4·90		206 15	4·30
" waiting orders									
" towing and preparing for work	4·15	1·00	21 00	15·50	41 15	0·90		67 00	1·40
" moving dredge and changing cut	24·45	5·10	26 00	18·60	182 30	4·30		232 45	4·70
" short of coal or supplies	0 30	0·10			2 30	0·10		3 00	0·06
" fog					90 25	2·00		90 15	2·00
" miscellaneous	83 15	17·70	1·50	1·00	562 45	13·50		647 30	13·60
Total lost time	197 30	42·10	126 50	90·70	2,156 30	51·96		2,480 30	52·20
Time actually dredging	272 00	57·90	13 00	9·30	1,994 30	48·04		2,279 30	47·80
Possible dredging time	469 30	100·00	139 50	100·00	4,151 00	100·00		4,760 00	100·00

Names of Departmental Tugs included in expenditure, dates between which employed, and localities —Tug *Point Ellice*, tending Dredge *Mastodon*, April to October, December and January
Tug *Point Grey*, tending Dredge *Mastodon*, April 1, 1913 to March 31, 1914.
Remarks —General overhaul, July 21 to August 23, 1913

BRITISH COLUMBIA—*Continued.*

Departmental Dredge "Mudlark 307," and Plant in Attendance.

—	April.	May.	June.	July.	August.	September.	October.	November.	December.	January.	February.	March.	Totals.
Material handled, c.yds	15,150	18,650	20,400	19,650	10,650	18,600	19,910	8,300	21,300	16,700	14,050	24,000	207,960
Kind of material	Clay	Mud & clay	Mud & clay.	Mud & clay.	Mud & clay.	Mud & clay.	Mud & clay.	Mud & clay.	Mud & clay.	Mud & clay.	Mud & clay.	Mud & clay.	.....
Total possible dredging time	460 00	413 50	409 50	439 00	320 00	397 50	439 00	351 50	440 50	444 50	367 50	439 00	4,942 50 Not including holidays
Hours actually dredging	232 00	206 00	225 50	213 50	118 50	207 00	233 00	118 00	262 00	229 00	202 00	304 00	2,550 50
Per hour, actually dredging....c. yds	65·0	91·0	904·00	92·00	90·00	90·00	85·50	70·30	81·30	72·50	67·50	81·00	.....

DETAILS OF EXPENDITURE.

	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Wages—Dredge	1,501 66	1,501 58	1,593 12	1,752 48	1,673 53	1,737 91	1,746 60	1,758 16	1,660 99	1,641 42	1,682 84	1,755 97	20,006 36
" Tug	690 00	696 43	719 99	764 00	690 00	704 25	730 00	690 00	705 00	742 10	1,544 58	1,597 92	10,274 27
Provisions—Dredge	641 88	605 94	703 86	648 48	668 48	667 36	651 14	594 29	686 38	609 06	600 97	666 39	7,744 23
" Tug	.....	.....	.....	.....	.....	.....	.....	152 07	.....	.....	84 87	355 61	592 55
Fuel—Dredge	101 25	965 19	2,675 00	.....	2,730 84	156 00	.....	2,399 11	.....	457 00	396 00	429 00	10,309 39
" Tug	.....	65 00	.....	.....	.....	129 00	.....	160 00	.....	195 50	446 00	628 85	1,624 35
Stores and Equipment Dredge	373 69	292 18	220 39	404 41	259 60	590 72	291 15	295 66	203 19	179 03	434 69	684 36	4,232 07
" " Tug	30 53	54 38	27 25	14 85	85 90	8 92	35 85	207 21	98 02	68 52	201 71	393 31	1,226 45
Contingencies—Dredge	451 12	137 45	106 20	37 95	154 02	392 05	49 75	242 55	293 80	44 25	33 18	42 04	1,984 36
" Tug	.....	13 59	12 50	.....	.....	80	2 50	60	12 72	2 50	17 75	5 00	67 06
Water—Dredge	11 30	7 50	9 40	.....	.....	.....	14 31	8 69	17 44	16 73	19 66	11 73	116 76
" Tug	.....	.....	.....	.....	.....	4 20	.....	1 66	7 93	4 29	2 40	1 80	22 28
Rental hired Tug	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Repairs—Dredge	969 63	1,293 60	1,807 88	840 58	4,613 17	434 45	620 12	2,105 75	2,076 77	.....	1,765 91	337 51	16,865 37
" Tug	.....	25 21	9 78	1,149 45	34 79	.....	74 52	.....	398 20	.....	75 60	38 05	1,805 00
Repairs, extraordinary	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
" " Tug	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4,129 87*	.....	4,129 87
Total—Dredge	4,050 53	4,803 44	7,115 95	3,686 90	10,099 64	3,978 49	3,376 07	7,404 21	4,938 57	2,947 49	4,933 25	3,927 00	61,258 54
Total—Tug	720 53	854 61	769 52	1,928 30	810 69	847 17	842 87	1,211 54	1,221 87	1,012 91	6,502 78	3,020 54	19,743 33

EXPENDITURE INCURRED WORKING AT

—	Victoria, B.C.	—	—	—	—	—	—	Totals.
	$ cts.							$ cts.
Wages—Dredge	20,006 36							20,006 36
" Departmental tugs	10,274 27							10,274 27
Provisions—Dredge	7,744 23							7,744 23
" Departmental tugs	592 55							592 55
Fuel—Dredge	10,309 39							10,309 39
Departmental tugs	1,624 35							1,624 35

Stores and equipment—Dredge	4,232 07								4,232 07
" " Departmental tugs	1,220 45								1,226 45
Contingencies—Dredge	1,984 36								1,984 36
" Departmental tugs	67 96								67 96
Water—Dredge	116 76								116 76
" Departmental tugs	22 28								22 28
Pilotage and towage—Dredge									
" " Departmental tugs									
Wharfage—Dredge									
" Departmental tugs									
Repairs—Dredge	16,865 37								16,865 37
" Departmental tugs	1,805 60								1,805 60
Repairs, extraordinary—Dredge									
" " Departmental tugs	4,129 87								4,129 87
Rental of hired tugs									
Total expenditure—Dredge	61,258 54								61,258 54
Total expenditure—Departmental tugs	19,743 33								19,743 33
Total expenditure—Hired tugs									
Total—Complete expenditure	81,001 87								81,001 87
Cubic yards removed	207,960								207,960
Cost per cubic yard (calculated from total expenditure)	$0·389								$0·389
Cost per hour actually dredging	$31·75								$31·75
Kind of material	Mud and clay								
Work commenced	April 1, 1913								
Work completed	Still dredging								

DISTRIBUTION OF TIME IN HOURS.

	Hours.	% of total.	—	—	—	—	—	—	Hours.	% of total.
Lost by storms and weather	117 00	2·30							117 00	2·30
" repairs	974 00	19·20							974 00	19·20
" coaling	212 00	4·20							212 00	4·20
" watering										
" tide and current	37 00	0·70							37 00	0·70
" cleaning plant										
" cleaning boilers	28 50	0·50							28 50	0·50
" inspecting boilers	52 50	1·00							52 50	1·00
" holidays	118 00	2·30							118 00	2·30
" waiting on scows or tug	116 50	2·30							116 50	2·30
" waiting orders										
" towing and preparing for work	170 50	3·30							170 50	3·30
" moving dredge and changing cut	276 50	5·40							276 50	5·40
" short of coal or supplies										
" fog	2 50	0·05							2 50	0·50
" miscellaneous	345 00	6·80							345 00	6·80
Total lost time	2510 00	49·60							2510 00	49·60
Time actually dredging	2550 50	50·40							2550 50	50·40
Possible dredging time	5060 50	100·00							5060 50	100·00

Names of Departmental Tugs included in expenditure, dates between which employed, and localities.—Tug *Point Hope*, tending dredge *Mudlark* whole year, except for the month of November. Tug *Petrel* tending Dredge *Mudlark* November, February and March.

Names of Rented Tugs included in expenditure, dates between which employed, and localities. *Heavy repairs in February to Tug were due to collission of SS. *Despatch* with Tug *Point Hope* October 25, 1913.

BRITISH COLUMBIA—*Continued.*

Departmental Dredge "Nakusp 308," and Plant in Attendance.

	April.	May	June.	July.	August.	September.	October.	November.	December.	January.	February.	March	Totals.
Material handled, c.yds.	10,302	4,545											14,847
Kind of material	Sand and clay	Sand and clay											
Total possible dredging time	234 00	108 00											343 00
Hours actually dredging	191 15	75 00											267 15
Per hour, actually dredging c.yds.	53·80	60·60											

Details of Expenditure.

	$ cts.	$ cts.				$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Wages	575 00	309 30				25 00	25 00	25 00	25 00	25 00	25 00	1,034 30
Provisions	63 70	97 63										161 33
Fuel	35 00	45 00										80 00
Stores and equipment	24 52	0 30										24 82
Contingencies		6 20										6 20
Water												
Pilotage and towage												
Wharfage												
Rental hired tugs												
Repairs (inc. all items charged to D.V. rep'rs)	16 52									55 60	42 80	37 90	152 80
Repairs—Extraordinary												
Totals	714 72	458 15				25 00	25 00	25 00	80 60	67 80	62 90	1,459 45

Expenditure Incurred Working at

	Two Beacon Bar.	Repairs and laying up	Totals.
Wages—Dredge	884 30	150 00	1,034 30
" Departmental tugs			
Provisions—Dredge	161 33		161 33
" Departmental tugs			
Fuel—Dredge	80 00		80 00
" Departmental tugs			
Stores and equipment—Dredge	24 82		24 82
" " Departmental tugs			
Contingencies—Dredge	6 20		6 20
" Departmental tugs			
Water—Dredge			
" Departmental tugs			
Pilotage and towage—Dredge			
" " Departmental tugs			

Wharfage—Dredge							
" Departmental tugs	16 50	136 30					152 80
Repairs—Dredge							
" Departmental tugs							
Repairs, extraordinary—Dredge							
" " Departmental tugs							
Rental of hired tugs							
Total expenditure—Dredge							
Total expenditure—Departmental tugs							
Total expenditure—Hired tugs							
Total—Complete expenditure	1,173 15	286 30					1,459 45
Cubic yards removed	14,847						14,847
Cost per cubic yard (calculated from total expenditure)	$1·10						$0·10
Cost per hour actually dredging	$0·46						$5·46
Kind of material	Clay and sand						
Work commenced	April 1						
Work completed	May 14						

DISTRIBUTION OF TIME IN HOURS.

	Two Beacon Bar.								Hours	% of total.
	Hours	% of total.								
Lost by storms and bad weather	20 00	6·00							20 00	6·00
" repairs	13 00	4·00							13 00	4·00
" coaling										
" watering										
" tide and current									24 00	7·00
" cleaning plant	24 00	7·00							9 00	2·00
" cleaning boilers	9 00	2·00								
" inspecting boilers										
" holidays										
" waiting on scows or tug										
" waiting orders										
" towing and preparing for work									10 00	3·00
" moving dredge and changing cut	10 00	3·00								
" short of coal or supplies										
" miscellaneous										
Total lost time	76 00	22·00							76 00	22·00
Time actually dredging	267 00	78·00							267 00	78·00
Possible dredging time	343 00								343 00	

Names of Departmental Tugs included in expenditure, dates between which employed, and localities.—None.
Names of Rented Tugs included in expenditure, dates between which employed and localities.—None.
Date Dredge put in commission—April 1, 1913. *Dredge laid up for season at* Nakusp, B. C., May 14, 1913
Remarks.—At close of dredging season of 1912-13 Dredge was laid up, on account of unseaworthy condition of hull. Conductor of Dredge *Sheldrake* acted as watchman during months of May to September. Expenditure, October to March, is for services of watchman and necessary work to keep dredge afloat. Instructions have been received to dismantle her and store machinery.

YALE-CARIBOO DISTRICT, B.C.

Departmental Dredge "Pelican 309," and Plant in Attendance.

	April.	May.	June.	July.	August.	September.	October.	November.	December.	January.	February.	March.	Totals.
Material handled, c.yds	11,663	3,346	Dredge laid up for high water, from May 12 to July 10.	4,318	7,479	5,226	7,499	6,389	6,886	7,110	7,140	9,998	77,054
Kind of material	Sand and gravel.	Sand and gravel.		Gravel at S. Thompson river, clay at Salmon Arm.	Clay.	Clay at Tappen and Salmon Arm, and gravel at Little river.	Sand and gravel.	Sand and gravel.	Sand and gravel.	Sand and gravel.	Sand and gravel.	Sand and gravel.	...
Total possible dredging time	234 00	81 00	459 00	243 00	234 00	225 00	243 00	225 00	213 00	213 00	216 00	234 00	2,880 00
Hours actually dredging	209 00	77 00	.....	128 00	218 00	159 00	207 00	171 00	196 00	203 00	203 00	201 00	1,972 00
Per hour, actually dredging ....c. yds.	55·8	43·4	.....	33·7	34·3	32·8	36·2	37·3	35·1	35·0	35·1	49·7	.....

DETAILS OF EXPENDITURE.

	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	For 3 mths. $ cts.
Wages										453 81	499 00	370 00	1,322 81
Provisions										145 23	202 64	73 91	421 78
Fuel										.....	328 50	.....	328 50
Stores and equipment										145 00	47 45	128 05	320 50
Contingencies										.....	.....	.....	.....
Water										.....	.....	.....	.....
Pilotage and towage										.....	.....	75 00	75 00
Wharfage										.....	.....	.....	.....
Rental hired tugs										.....	.....	.....	.....
Repairs (inc. all items charged to D.V. rep'rs)										.....	.....	.....	.....
Repairs, extraordinary										.....	.....	.....	.....
Totals										744 04	1,077 59	646 96	2,468 59

EXPENDITURE INCURRED WORKING AT

	Little River between Shuswap Lakes. Part Cut 3. $ cts.	—	—	—	—	—	—	—	Totals. $ cts.
Wages—Dredge	1,322 81								1,322 81
" Departmental tugs									
Provisions—Dredge	421 78								421 78
" Departmental tugs									
Fuel—Dredge	328 50								328 50
" Departmental tugs									
Stores and equipment—Dredge	320 50								320 50
" " Departmental tugs									
Contingencies—Dredge									
" Departmental tugs									
Water—Dredge									
" Departmental tugs									

Pilotage and towage—Dredge	75 00							75 00
" " Departmental tugs								
Wharfage—Dredge								
" Departmental tugs								
Repair—Dredge								
" Departmental tugs								
Repairs, extraordinary—Dredge								
" " Departmental tugs								
Rental of hired tug								
Total expenditure for three months—Dredge	2,468 59							2,468 59
Total expenditure—Departmental tugs								
Total expenditure—Hired tugs								
Total—Complete expenditure	2,468 59							2,468 59
Cubic yards removed, place measurement	14,250							14,250
Cost per cubic yard (calculated from total expenditure)	12·70 cts.							12·70 cts.
Cost per hour actually dredging	$4·06							$4·06
Kiad of material	Sand and gravel							
Work commenced	Dec. 1, 1914.							
Work completed	Not completed yet.							

DISTRIBUTION OF TIME IN HOURS.

	Little River between Shuswap Lakes Part Cut No. 3.		Little River between Shuswap Lake Cuts No. 1, 2 and part 3.		Chase on Shuswap Lake		D.P.W.Office Wharf at Chase.		Salmon Arm on Shuswap Lake.		Tappen on Shuswap Lake		Chase Public Wharf on Shuswap Lake.		Totals.	
	H. M.	% of total.	H. M.	% of total.	H. M.	% of total.	H. M.	% of total.	H. M.	% of total.	H. M.	% of total.	H. M.	% of total.	H. M.	% of total.
Lost by storms and weather																
" repairs	3 00	0·43	44 00	4·40	225	49·00			13 00	2·80					285 00	9·90
" coaling																
" watering																
" tide and current																
" cleaning plant	4 00	0·57	36 00	3·60	18	3·90									58 00	2·00
" cleaning boilers	9 00	1·30			9	1·90			8 00	1·80					26 00	0·90
" inspecting boilers																
" holidays	9 00	1·30	18 00	1·80	18	3·90			9 00	2·00					54 00	1·90
" waiting on scows or tug																
" waiting orders																
" towing and preparing for work			45 00	4·50			18 00	28·60	18 00	3·90	9 00	11·10	18 00	14·30	108 00	3·70
" moving dredge and changing cut	14 00	2·00	19 00	1·90	5	1·20			11 00	2·40	3 00	3·70			52 00	1·80
" short of coal or supplies																
" loading wood (fuel)	22 00	3·20	36 00	3·60	76	16·60									134 00	4·70
" pulling snags			9 00	0·90											9 00	0·30
" miscellaneous	25 00	3·60	49 00	4·90	108	23·50									182 00	6·30
Total lost time	86 00	12·40	256 00	25·60	459	100·0	18 00	28·60	59 00	12·90	12 00	14·80	18 00	14·30	908 00	31·50
Time actually dredging	607 00	87·60	743 00	74·4	Dredging suspended for high water.		45 00	71·40	400 00	87·10	69 00	85·20	108 00	85·70	1972 00	68·50
Possible dredging time	693 00	100·00	999 00	100·00	459 00	100·00	63 00	100·00	459 00	100·00	81 00	100·00	126 00	100·00	2880 00	100·00

Date Dredge in commission.—April 1, 1913. *Dredge laid up for high water at* Chase, May 12, 1913, to July 10, 1913.

BRITISH COLUMBIA—*Continued.*

Departmental Dredge "Sheldrake," and Plant in Attendance.

	April.	May.	June.	July.	August	September.	October.	November.	December.	January.	February.	March.	Totals
Material handled, c. yds.	6,130						1,610	6,130	6,280	15,250	17,470	18,200	71,070
Kind of material	Hard gravel and clay.						Rock and clay.	Rock and clay	Rock and clay	Clay, rock, sand.	Sand, clay, and rock.	Sand.	
Total possible dredging time	234 00						45 00	216 00	234 00	234 00	216 00	234 00	1,413 00
Hours actually dredging	149 00						10 00	147 00	154 00	210 00	202 00	204 00	1,106 00
c. yds. per hour, actually dredging	41·00						40·25	49·20	40·20	70·20	86·50	89·20	

Details of Expenditure.

	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Wages	551 00	248 55	300 00	162 00	300 00	390 00	152 57	565 00	604 05	620 00	620 00	620 00	5,133 17
Provisions	143 88	26 95		186 14	75 00	88 75	169 47	192 85	217 93	209 25	189 80	209 25	1,709 27
Fuel	164 55						495 20		251 60	583 20	60 00	257 60	2,112 15
Stores and equipment	30 25			20 45							384 20		434 90
Contingencies		12 10	27 00	22 35	32 12	8 00		11 04		28 80		36 75	179 16
Water													
Pilotage and towage		50 00					765 00	22 00	190 00	40 00		120 00	1,187 00
Wharfage													
Rental hired tugs													
Repairs (inc. all items charged to D.V. rep'rs)								17 76	50 60	40 34	7 95	1 35	118 00
Repairs—Extraordinary				314 08	183 92	1,616 33	27 70	64 20	102 34				2,308 57
Totals	1,189 68	337 60	187 00	843 02	591 06	2,103 08	1,609 96	875 85	1,416 52	1,521 59	1,261 95	1,244 95	13,182 22

Expenditure Incurred Working at

	Columbia Riv. Narrows.							Totals
	$ cts.							$ cts.
Wages—Dredge	5,133 17							5,133 17
" Departmental tugs								
Provisions—Dredge	1,709 27							1,709 27
" Departmental tugs								
Fuel—Dredge	2,112 15							2,112 15
" Departmental tugs								
Stores and equipment—Dredge	434 90							434 90
" " Departmental tugs								
Contingencies—Dredge	179 16							179 16
" Departmental tugs								
Water—Dredge								
" Departmental tugs								
Pilotage and towage—Dredge	1,187 00							1,187 00
" " Departmental tugs								

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BRITISH COLUMBIA—*Continued.*

Departmental "Lobnitz Rock Breaker No. 1," and Plant in Attendance.

——	April.	May.	June.	July.	August.	September.	October.	November.	December.	January.	February.	March.	Totals.
Number of blows	26,715	24,934	18,699	27,248	20,968	31,535	11,428	25,918	41,066	41,939	29,966	39,762	340,178
Number of holes	2,683	2,449	1,310	3,253	1,670	2,541	1,036	2,297	2,926	2,472	2,469	3,427	28,533
Total possible dredging time	439 00	445 00	367 50	449 50	393 50	409 50	273 50	372 50	397 00	445 00	367 50	460 00	4,819 50 not including holidays
Hours actually dredging	244 30	271 00	199 75	272 75	216 50	273 75	94 00	218 75	295 50	307 25	231 50	320 50	2,945 75
Blows per hour, actually dredging	113·00	92·00	93·00	100·00	97·00	115·00	121·00	118·00	139·00	136·00	129·00	124·00	.....

DETAILS OF EXPENDITURE.

	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Wages	1,201 75	1,126 65	1,113 49	1,168 05	1,194 43	1,170 91	1,170 73	1,115 41	1,130 62	1,169 65	1,166 90	1,260 13	14,032 72
Provisions	381 90	378 20	397 94	408 31	423 97	399 47	403 39	328 43	384 34	285 68	244 73	269 94	4,306 30
Fuel	513 00	636 00	585 00	774 00	661 05	767 70	225 00	145 55	864 25	359 25	347 50	421 25	6,299 55
Stores and equipment	160 82	161 61	152 81	345 16	168 63	120 29	343 48	322 55	185 49	241 98	253 05	182 20	2,638 07
Contingencies	583 05	26 80	128 65	31 70	168 93	2,169 79	50 99	3,458 11	25 25	366 49	3 31	178 44	7,191 51
Water	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Pilotage and towage	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Wharfage	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Rental hired tugs	.....	95 50	.....	92 00	.....	.....	.....	.....	.....	.....	.....	.....	187 50
Repairs (inc. all items charged to D.V. rep'rs)	.....	2,861 26	79 37	235 37	1,013 05	427 02	504 77	2,373 82	274 91	.....	1,912 53	129 31	9,811 41
Repairs, extraordinary	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals	2,840 52	5,286 02	2,457 26	3,054 59	3,630 06	5,055 18	2,702 36	7,783 87	2,864 86	2,423 05	3,928 02	2,441 27	44,467 06

EXPENDITURE INCURRED WORKING AT

——	Victoria Harbour.	—	—	—	—	—	—	Totals.
	$ cts.							$ cts.
Wages—Dredge	14,032 72	.....	.....	.....	.....	.....	.....	14,032 72
" Departmental tugs	.....	.....	.....	.....	.....	.....	.....	.....
Provisions—Dredge	4,306 30	.....	.....	.....	.....	.....	.....	4,306 30
" Departmental tugs	.....	.....	.....	.....	.....	.....	.....	.....
Fuel—Dredge	6,299 55	.....	.....	.....	.....	.....	.....	6,299 55
" Departmental tugs	.....	.....	.....	.....	.....	.....	.....	.....
Stores and equipment—Dredge	2,638 07	.....	.....	.....	.....	.....	.....	2,638 07
" " Departmental tugs	.....	.....	.....	.....	.....	.....	.....	.....
Contingencies—Dredge	7,191 51	.....	.....	.....	.....	.....	.....	7,191 51
" Departmental tugs	.....	.....	.....	.....	.....	.....	.....	.....

| | | |

BRITISH COLUMBIA—*Continued.*

Departmental "Lobnitz Rock Breaker No. 2," and Plant in Attendance.

	April.	May.	June.	July	August.	September.	October.	November.	December.	January.	February	March.	Totals.
Material handled, c. yds.													
Kind of material													
Total possible dredging time													
Hours actually dredging													
Per hour actually dredging ....c. yds.													

DETAILS OF EXPENDITURE

Wages											$ cts.	$ cts.	$ cts.
Provisions											154 84	398 68	553 52
Fuel											...	174 44	174 44
Stores and equipment												190 50	190 50
Contingencies												926 43	926 43
Water											10 85	113 75	124 60
Pilotage and towage													
Wharfage													
Rental hired tugs													
Repairs (inc. all items charged to D.V. rep'rs)													
Repairs—Extraordin'y													
Totals											165 69	1,803 80	1,969 49

EXPENDITURE INCURRED WORKING AT NEW GOVERNMENT WHARF, VANCOUVER, B.C.

		Totals.
	$ cts.	$ cts.
Wages—Dredge	553 52	553 52
" Departmental tugs		
Provisions—Dredge	174 44	174 44
" Departmental tugs		
Fuel—Dredge	190 50	190 50
" Departmental tugs		
Stores and equipment—Dredge	926 43	926 43
" " Departmental tugs		
Contingencies—Dredge	124 60	124 60
" Departmental tugs		
Water—Dredge		
" Departmental tugs		
Pilotage and towage—Dredge		
" " Departmental tugs		

Wharfage—Dredge	
" Departmental tugs	
Repairs—Dredge	
" Departmental tugs	
Repairs, extraordinary—Dredge	
" " Departmental tugs	
Rental of hired tugs	
Total expenditure—Dredge	
Total expenditure—Departmental tugs	
Total expenditure—Hired tugs	
Total—Complete expenditure	1,969 49
Cubic yards removed	
Cost per cubic yard (calculated from total expenditure)	
Cost per hour actually dredging	
Kind of material	
Work commenced	
Work completed	

DISTRIBUTION OF TIME IN HOURS

Lost by storms	
" repairs	
" coaling	
" watering	
" tides and current	
" cleaning plant	
" cleaning boilers	
" inspecting boilers	
" holidays	
" waiting on scows or tug	
" waiting orders	
" towing and preparing for work	
" moving dredge and changing cut	
" short of coal or supplies	
" miscellaneous	
Total lost time	
Time actually dredging	
Possible dredging time	

Date Dredge put in commission—March 13, 1914.

Remarks.—Rock Breaker was handed over to department on March 13, 1914, and was tried out in Vancouver at the site of new government wharf, after which the machine was towed to Nanaimo on April 6, and commenced work.

BRITISH COLUMBIA—*Continued.*

Departmental Dredge "Victoria," and Plant in Attendance.

—	April.	May.	June.	July.	August.	September.	October.	November.	December.	January.	February.	March.	Totals.
Material handled, c.yds									330 00	534 00	1,177 00	882 30	2,914 30
Kind of material									Rock and mud.	Rock and mud.	Rock and mud.	Rock and mud.	
Total possible dredging time									81 00	224 30	210 00	243 00	758 30
													Not including holidays
Hours actually dredging									32 30	94 30	105 30	133 00	365 30
Per hour, actually dredging ..... c. yds													

Details of Expenditure.

	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Wages									102 41	444 35	450 00	450 00	1,446 76
Provisions									137 06	118 64	144 97	148 06	548 73
Fuel										195 00	158 40	60 00	419 40
Stores and equipment									663 73	280 82	288 67	109 89	1,403 11
Contingencies									76 93	174 66	242 00	77	494 36
Water													
Pilotage and towage													
Wharfage													
Rental hired tugs													
Repairs (inc. all items charged to D.V. rep'rs)											838 63		838 63
Repairs, extraordinary													
Totals									980 13	1,213 47	1,880 67	1,076 72	5,150 99

Expenditure Incurred Working at Victoria Harbour.

—	—	—	—	—	—	—	—	Totals.
	$ cts.							$ cts.
Wages—Dredge	1,446 76							1,446 76
" Departmental tugs								
Provisions—Dredge	548 73							548 73
" Departmental tugs								
Fuel—Dredge	419 40							419 40
" Departmental tugs								
Stores and equipment—Dredge	1,403 11							1,403 11
" " Departmental tugs								
Contingencies—Dredge	494 36							494 36
" Departmental tugs								

Water—Dredge									
" Departmental tugs									
Pilotage and towage—Dredge									
" " Departmental tugs									
Wharfage—Dredge									
" Departmental tugs									
Repairs—Dredge	838 63								838 63
" Departmental tugs									
Repairs, extraordinary—Dredge									
" " Departmental tugs									
Rental of hired tugs									
Total expenditure—Dredge									
Total expenditure—Departmental tugs									
Total expenditure—Hired tugs									
Total—Complete expenditure	5,150 99								5,150 99
Cubic yards removed	650 mud 2,264 rock								2,914½
Cost per cubic yard (calculated from total expenditure)	$1·76								$1·76
Cost per hour actually dredging	$14·09								
Kind of material	Rock and mud								
Work commenced	Dec. 22, 1913								
Work completed	Still dredging								

DISTRIBUTION OF TIME IN HOURS.

	Hours.	% of total.	—	—	—	—	—	—	Hours.	% of total.
Lost by storms and weather	36 50	4·50							36 50	4·50
" repairs	185 50	23·80							185 50	23·80
" coaling	7 50	0·90							7 50	0·90
" watering	7 50	0·90							7 50	0·90
" tide and current										
" cleaning plant	22 50	2·80							22 50	2·80
" cleaning boilers										
" inspecting boilers										
" holidays	19 00	2·50							19 00	2·50
" waiting on scows or tug										
" waiting orders	19 50	2·50							19 50	2·50
" towing and preparing for work	17 50	2·20							17·50	2·20
" moving dredge and changing cut	52 00	6·70							52 00	6·70
" short of coal or supplies										
" miscellaneous	44 50	5·70							44 50	5·70
Total lost time	412 00	53·00							412 00	53·00
Time actually dredging	365 50	47 00							365 50	47 00
Possible dredging time	777 50	100·00							777 50	100·00

Date Dredge put in commission.—December 22, 1913.

BRITISH COLUMBIA—*Concluded.*

DEPARTMENTAL "DRILLING PLANT," AND PLANT IN ATTENDANCE.

	April.	May.	June.	July.	August.	September	October.	November.	December	January.	February.	March.	Totals.
Material handled, c yds.													15,162
Kind of material				Rock	Rock.	Rock	Rock.	Rock.	Rock	Rock			
Total possible dredging time													
Hours actually dredging													
Per hour actually dredging, c. yds													

DETAILS OF EXPENDITURE

	April.	May.	June.	July.	August.	September	October.	November.	December	January.	February.	March.	Totals.
	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Wages	848 65	880 90	845 77	903 60	1,256 13	1,698 03	1,973 25	1,790 24	2,031 80	1,986 49	2,577 73	2,518 20	19,310 79
Provisions													
Fuel	67 50	81 00	67 50	90 00	117 00	145 20	234 00	192 00	144 00	79 20	158 40	79 20	1,485 00
Stores and equipment	588 40	337 50	471 58	513 71	777 92	1,176 16	1,218 15	405 66	1,699 21	1,491 03	1,368 52	1,181 96	11,229 80
Contingencies		52 45	196 99	29 45	218 00	656 14	1,605 41	1,559 00	705 93	334 85	5 20	351 36	5,714 78
Water													
Pilotage and towage													
Wharfage													
Rental hired tugs													
Repairs (inc. all items charged to D.V. rep'rs)		16 83	124 97	6 65		586 14	291 80	58 79			723 72		1,808 80
Repairs—Extraordin'y													
Totals	1,504 55	1,368 68	1,706 81	1,543 41	2,399 05	4,261 57	5,322 61	4,005 69	4,580 94	3,891 57	4,833 57	4,130 72	39,549 17

EXPENDITURE INCURRED WORKING AT

	Victoria Harbour.	Totals
	$ cts.	$ cts.
Wages—Dredge	19,310 79	19,310 79
" Departmental tugs		
Provisions—Dredge		
" Departmental tugs		
Fuel—Dredge	1,485 00	1,485 00
" Departmental tugs		
Stores and equipmental—Dredge	11,229 80	11,229 80
" " Departmental tugs		
Contingencies—Dredge	5,714 78	5,714 78
" Departmental tugs		
Water—Dredge		
" Departmental tugs		

Pilotage and towage—Dredge							
" " Departmental tugs							
Wharfage—Dredge							
" Departmental tugs							
Repairs—Dredge	1,808 80						1,808 80
" Departmental tugs							
Repairs, extraordinary—Dredge							
" " Departmental tugs							
Rental of hired tugs							
Total expenditure—Dredge							
Total expenditure—Departmental tugs							
Total expenditure—Hired tugs							
Total—Complete expenditure	39,549 17						39,549 17
Cubic yards removed	15,162						15,162
Cost per yard (calculated from total expenditure)	$2 60						$2.60
Cost per hour actually dredging							
Kind of material	Rock.						
Work commenced	April 1st, 1913						
Work completed	Still working.						

DISTRIBUTION OF TIME IN HOURS.

Lost by storms and weather							
" repairs							
" coaling							
" watering							
" tide and current							
" cleaning plant							
" cleaning boilers							
" inspecting boilers							
" holidays							
" waiting on scows or tug							
" waiting orders							
" towing and preparing for work							
" moving dredge and changing cut							
" short of coal or supplies							
" miscellaneous							
Total lost time							
Time actually dredging							
Possible dredging time							

Remarks.—Cubic yards blasted, estimated by District Engineer G. B. Hughes, Victoria, B C

CONTRACT DREDGING, 1913.

Amherst, N.S.—Under agreement with E. R. Reid. Dredge Orange Peel *No. 2.*
Quantity removed: 1,970 cubic yards, place measurement, at 50 cents per cubic yard.
Under contract No. 8569 final with E. R. Reid—agreement:—
Quantity removed 4,440 cubic yards, scow measurement, at 65 cents per cubic yard.
Amounts paid contractor: agreement, $985; contract 8569, $2,886; inspection, $316.50; total expenditure, $4,187.50.
Work commenced 6th April, 1913; completed 30th June, 1913.
Object of work: Removal of points at bends in river, and dredging of berths.

Arnolds Cove, N.S.—Under contract No. 9532 with Nova Scotia Dredging Co. Dredge *Ajax.*
Quantity removed: 43,624½ cubic yards, scow measurement, at 29 cents per cubic yard, sand and mud.
Amount passed for payment, $12,651.70; inspection, $299.25; total expenditure, $12,950.35.
Work commenced 2nd June, 1913; completed 12th Jan., 1914.
Object of the work: Dredging channel and mooring space.

Beacon Bar St. John, N.B., and Sand Point.—Under contract No. 7304 with Maritime Dredging and Construction Co. Dredges *Beaver, Cynthia, Iroquois,* and *St. John.*
Quantity removed: 27·73 cubic yards, class "A" at $4.90; 2,297,266·20 cubic yards, scow measurement, class "B" material at 39½ cents, clay, sand, mud, and gravel and boulders.
Amount passed for payment, $907,555.98.
Work commenced 1st April, 1913; suspended 31st March, 1914.
Object of work: Continuation of harbour improvements West St. John.

Buctouche, N.B.—Under agreement with Félix Michaud. Dredge *Excavator.*
Quantity removed: 6,252 cubic yards class "B," scow measurement, at 36 cents per cubic yard; 2,461·5 cubic yards cast-over at 24 cents per cubic yard, sand.
Amount paid contractor, $2,841.48; inspection, $191.74; total expenditure, $3,033.22.
Work commenced 29th April; completed 11th July, 1913.
Object of work: Dredging channel through Buctouche Beach bar.

Bakers Point, N.S., Lower East Jeddore.—Under agreement with Nova Scotia Dredging Company. Dredge *Ajax.*
Quantity removed: 2,300½ cubic yards, scow measurement, class "B," at 50 cents per cubic yard, mud and sand.
Amount paid contractor, $1,150.25; inspection, $80; total expenditure, $1,230.25.
Work commenced 1st to 31st May, 1913; completed 14th January, 1914.
Object of work: Dredging approach to wharf.

Blind River, Ont.—Under contract No. 8884 with C. S. Boone Dredging and Construction Co. Dredges *Kingsford* and *Meade.*
Quantity removed: 17,480 cubic yards, place measurement, at 15½ cents per cubic yard, class "B," sand and boulders.

Amount passed for payment, $2,709.40; inspection, $607.99; total expenditure, $2,317.39.
Work commenced, 24th May; suspended for season, 30th August, 1913.
Object of work: Completion of improvement of channel to wharf.

Brockville, Ont.—Under agreement with Montreal General Contracting Co. Dredge *Ottawa.*
Removing shoal, 39 hours, $600.
Completed July.
Object of work: Removal of rock shoal.

Belleville, Ont.—Under agreement with Randolph MacDonald Co. Dredge *No. 5.*
Quantity removed: 15,113 cubic yards, place measurement, at 30 cents per cubic yard, rock, mud, and boulders.
Amount paid contractor, $4,533.90; inspection, $243.85; total expenditure, $4,777.75.
Work commenced 1st July; completed, 26th October, 1913.
Object of work: Dredging channel leading to Allan's wharf.

Bathurst, N.B.—Under contract No. 9483 with Northern Dredging and Construction Co. Dredges *Hayward, Gray Loggie, Invader,* and *King Edward.*
Quantity removed: 209,380 cubic yards, place measurement, at 25 cents per cubic yard, class "B," clay, sand, mud, and shells.
Amount passed for payment, $52,345; inspection, $2,009.26; total expenditure, $54,354.26.
Work commenced 7th July; suspended for season, 22nd November, 1913.

Bathurst, N.B.—Under agreement with Northern Dredging and Construction Co. Dredges *Invader* and *Gray Loggie.*
Quantity removed: 17,075·08 cubic yards, scow measurement, at 25 cents per cubic yard, class "B," clay, sand, mud, and shells.
Amount passed for payment, $4,268.76; inspection, included with contract, 9483.
Work commenced 1st August; suspended for season 31st August, 1913.

Bonshaw, P.E.I.—Hand dredging, District Engineer. Expenditure, $274.07.
Object of work: Cleaning up portion of river channel.

Big Aldouane, N.B.—Hand dredging. Expenditure, $1,094.25.
Object of work: Dredging channel across shoal.

Bruce Mines, Ont.—Under contract No. 9519 with Soo Dredging and Construction Co. Dredge *No. 5.*
Quantity removed: 16,971 cubic yards, place measurement, at 32 cents per cubic yard, class "B," mud and clay.
Amount paid contractor, $5,430.72; inspection, $925.95; total expenditure, $6,356.67.
Work commenced, 20th August; completed 19th September, 1913.
Object of work: Dredging channel.

Boar's Head, River Mills, N.S.—Under contract No. 9496 with New Brunswick Construction Co. Dredge *New Brunswick No. 1.*
Quantity removed: 7,031·6 cubic yards, scow measurement, at 26 cents per cubic yard, class "B," clay, logs and stone.
Amount paid contractor, $1,828.22.
Work commenced, 11th September, 1913; suspended, 25th September, 1913.
Object of work: Removal of old wharfs and breakwater which lie below water level.

Black River, N.B.—Under agreement with Felix Michaud Dredge *Excavator.*
Quantity removed: 6,398.4 cubic yards, scow measurement, at 36 cents per cubic yard, class "B," mud and clay and shells.
Amount passed for payment, $2,303.43 inspection, $154.50; total expenditure, $2,457.93.
Work commenced 13th September; suspended for season 22nd November, 1913.
Object of work: Completion of channel from Buctouche bay.

Bu[illegible]'s Falls, Ont.—Improvement of Maganatawan river.
Day labour. Expenditure, $1,247.45.
September 24, to November 30, 1913.

Coffins Island, N.S.—Southern Salvage Co. SS. *Coast Guard.*
Removal of boulders at $90 per day.
Amount passed for payment, $1,414.10; inspection, $45; total expenditure, $1,489.10.
Work commenced 24th April, 1914; completed, 16th May.
Object of work: Improvement of channel to provide shelter.

Chatham, N.B.—Miramichi Foundry Wharf. Under agreement with Northern Dredging and Construction Co. Dredge *Hayward.*
Quantity removed: 1,594.8 cubic yards, place measurement, at 30 cents per cubic yard, class "B," mud, slates, gravel, etc.
Amount paid contractor, $478.44; inspection, $25.50; total expenditure, $503.94.
Work commenced 17th May; completed 24th May, 1913.
Object of work: Dredging berths along the wharves.

Cobourg, Ont.—Under contract No. 9287 with General Construction and Dredging Co. Dredges *E. Hall No. 1* and *Dragon Rouge.*
Quantity removed: 32,143 cubic yards, scow measurement, at 19½ cents per cubic yard, sand.
Amount paid contractor, $6,267.88; inspection, $381; total expenditure, $6,648.88.
Work commenced 16th June; completed 22nd November, 1913.
Object of work: Improving entrance to harbour.

Cobourg, Ont.—Under agreement with John E. Russell.
Quantity removed: 1,800 cubic yards, place measurement, at 50 cents per cubic yard.
Amount paid contractor, $900.
Work commenced ; completed 31st December, 1913.
Object of work: Removing submerged crib work.

Cloud Bay, Ont.—Under contract No. 9477 with Great Lakes Dredging Co. Dredge *Shuniah.*
Quantity removed: 54,656 cubic yards, place measurement, at 25 cents per cubic yard, sand and clay.
Amount paid contractor, $13,644.
Work commenced 14th July; completed 21st July, 1913.
Object of work: Dredging channel at mouth of Cloud river.

Collingwood, Ont.—Under contract No. 9512 with C. S. Boone Dredging and Construction Company, Dredge *No. 10.*

Quantity removed: 18,052 cubic yards, place measurement, at 59½ cents per cubic yard, class "B," mud, hardpan and boulders; 42½ cubic yards, place measurement, at $2.77 per cubic yard, class "A" rock.

Amount passed for payment, $10,740.93; inspection, $328.48; total expenditure, $11,069.41.

NOTE.—Rock not passed for payment.

Work commenced 2nd September; suspended for season, 24th November, 1913.

Object of work: Dredging turning basin.

Clark's Harbour, N.S.—Southern Salvage Co., removal of boulders SS. *Coast Guard* at $90 per day, $1,168.

Object of work: Improvement of approaches to wharf of Cape Sable Packing Co.

Cheticamp, N.S.—Under contract No. 9629 with Northern Dredging and Construction Co., Dredge *Prince Ito.*

Quantity removed: 50,096·2 cubic yards, scow measurement, at 30 cents per cubic yard, class "B," mud, sand and gravel.

Amount paid contractor, $15,028.86; inspection, $233.80; total expenditure, $15,262.66.

Work commenced 22nd September; completed, 3rd December, 1913.

Object of work: Completion of entrance channel approach to harbour.

Chicoutimi Wharf, Saguenay river.—Under contract No. 8738 with Continental Dredging Co., Dredge *Algonquin.*

Quantity removed, 30,060 cubic yards, scow measurement, at 32½ cents per cubic yard, class "B," clay.

Amount paid contractor, $9,769.50; inspection included in river Saguenay.

Completed 20th September, 1913.

Object of work: Deepening to 25 feet at Chicoutimi wharf; material partly used as filling for new extension of wharf.

Coquitlam, B.C.—Under agreement with Pacific Dredging Co., Dredge *Beaver No. 2.*

Quantities removed: 6,560 cubic yards, place measurement, at 23 cents per cubic yard class "B" material, clay and hardpan; 4,032 cubic yards cast-over at 15⅓ cents.

Amount paid contractor, $2,127.04.

Work commenced 23rd January, 1914; completed 5th March, 1914.

D'Escousse, N.S.—Under contract No. 8927 with V. T. Bartram. Dredge *E. B. No. 1.*

Quantity removed: 18,084·25 cubic yards, scow measurement, class "B," at 26½ cents per cubic yard, clay, boulders, and mud.

Amount paid contractor, $4,409.89; inspection, $87.16; total expenditure, $4,497.05.

Work commenced 16th May; completed 4th July, 1913.

Object of work: Deepening berth west of public wharf, and removing Pettipas shoal.

Dalhousie, N.B.—Under contract No. 9091 with Northern Dredging and Construction Co. Dredge *Gray Loggie.*

Quantity removed, 14,948·81 cubic yards, scow measurement, at 29½ cents per cubic yard, class "B," mud and clay.

Amount paid contractor, $4,409.89; inspection, $87.46; total expenditure, $4,497.05.

Work commenced 17th June; completed 14th July, 1913.

Object of work: Dredging mooring space between breakwater and ferry wharf.

Dalhousie, N.B.—Under contract No. 9997 with Northern Dredging and Construction Co.

Quantities removed: 653·2 cubic yards, place measurement, class "A," rock, at $5; 268·5 cubic yards, class "B," at 30 cents per cubic yard.

Amount passed for payment, $3,346.55.

Work commenced 26th August; suspended 28th November, 1913.

Object of work: Dredging loading berth at Dalhousie Lumber Co. wharf.

Digby, N.S.—Under contract No. 9556 with Maritime Dredging and Construction Co. Dredges *Iroquois* and *Provincial No. 1.*

Quantities removed: At pier, 79,900 cubic yards, scow measurement, at 25 cents per cubic yard, class "B" material, clay, sand, and mud; at pier, 77,989 cubic yards, scow measurement, at 24½ cents per cubic yard; at raquette, 22,275 cubic yards, place measurement, at 59 cents per cubic yard.

Amount passed for payment, $52,224.55.

Work commenced 8th July, 1913; suspended 23rd January, 1914.

Object of work: Improvements at Government pier and in the raquette.

Deseronto, Ont.—Under contract No. 9,421 with John E. Russell. Dredge *Dragon Rouge.*

Quantity removed: 5,400 cubic yards, place measurement, at $3 per cubic yard, class "A," rock.

Amount paid contractor, $16,200; inspection, $194.18; total expenditure, $16,394.18.

Work commenced 14th July; completed 13th September, 1913.

Object of work: Dredging channel to wharfs.

Doucet's Landing, Que.—Under agreement with F. C. Burns. Dredge *Capital.*

Quantity removed: 16,122 cubic yards, place measurement, at 31 cents per cubic yard, class "B," hardpan, sand, and boulders.

Amount paid contractor, $4,997.82; inspection, $156; total expenditure, $5,153.82.

Work commenced 30th September; completed 20th November, 1913.

Dunham Wharf, N.B.—Under agreement with New Brunswick Construction Co. Dredge *New Brunswick No. 1.*

Quantity removed: 12,683·2 cubic yards, place measurement, at 28 cents per cubic yard, class "B" material, gravel, clay, and sand.

Amount paid contractor, $3,551.30.

Work commenced 4th October, 1913; suspended 22nd October, 1913.

Echo Bay, Ont.—Under contract No. 8608 with Superior Dredge and Dock Company. Dredge *Julia Murphy.*

Quantity removed: 17,845 cubic yards, place measurement, at 22 cents per cubic yard, sand, gravel, and clay.

Amount paid contractor, $3,839.29; inspection, $478.63; total expenditure, $4,317.92.

Work commenced 1st July; completed 20th October, 1913.

Object of work: Dredging channel between Echo bay and Echo lake.

Evandale, N.B.—Under agreement with New Brunswick Construction Company. Dredge *New Brunswick No. 1.*

Quantity removed: 9,516·5 cubic yards, place measurement, at 30 cents per cubic yard, class "B," clay, rock, gravel, and mud.

Amount paid contractor, $2,854.95.

Work commenced 23rd August; completed 10th September, 1913.

Object of work: Dredging basin and entrance to wharf.

False Creek, B.C.—Under contract No. 9328 with Pacific Dredging Co. Dredges *No. 1* and *Robson*.
Quantity removed: 970,183 cubic yards, place measurement, at 21 cents per cubic yard, class "B" material, clay, sand, gravel, and boulders.
Amount paid contractor, $203,738.43.
Work commenced 16th May, 1913; suspended for season 31st March, 1914.
Object of work: Deepening creek from English bay to Main Street bridge.

Fort William, Ont.—C. P. Ry. Slip.—Under contract No. 9,175 with Great Lakes Dredging Co. Dredges *No. 8* and *Shuniah*.
Quantity removed, 188,181 cubic yards, place measurement, at 25 cents, class "B" material, clay.
Amount paid contractor, $47,837.48; inspection included with other contracts.
Work commenced 6th May; completed 30th June, 1913.
Object of work: Extension of contract.

Fort William, Ont.—Kaministiquia and Mission Rivers.—Under contract No. 7,339 with Great Lakes Dredging Co. Dredges *No. 5, No. 8, No. 15, Imperial, Province, Dominion, Frank, No. 6, and No. 1.*
Quantity removed: class "A," 5,413 cubic yards at $2.40 per cubic yard, scow measurement; class "B," 2,462,324 cubic yards at 10¼ and 22½ cents per cubic yard, scow measurement, clay, sand, and rock.
Amount passed for payment, $396,543.30.
Work commenced 7th May; suspended for season, 24th December, 1913.
Object of work: To continue dredging in the Kaministiquia and Mission rivers, including G. T. P. basin and entrance channel.

Fort William, Ont.—G. T. P. Basin, Mission River.—Under contract No. 7170 with Great Lakes Dredging Co. Dredges *Frank, Shuniah, Imperial, Province.*
Place measurement: Dredge *Shuniah*, 25½ cents; scow, 16 cents; rehandling, 18½ cents.
Quantity removed, 706,204 cubic yards, class "B," sand, and clay.
Amount passed for payment, $126,187.83.
Work commenced 6th May, 1913.
Object of work: Extension.

Foul Ground, St. John, N.B.—Under contract No. 9426 with Maritime Dredging and Construction Co. Dredge *Cynthia.*
Quantities removed: 84·78 cubic yards, scow measurement, class "A," boulders, at $6.90; 38,646·7 cubic yards, scow measurement, class "B," mud, at 49½ cents.
Amount paid contractor, $19,715.11.
Work commenced 12th August, 1913; suspended for season 6th March, 1914.
Object of work: To maintain channel.

Fredericton, N.B.—Under contract 8922 with New Brunswick Construction Co. Dredges *Tantawanta* and *Provincial No. 1.*
Quantity removed: 51,446 cubic yards, scow measurement, at 23 cents per cubic yard, class "B" material, clay, sand, and gravel.
Amount passed for payment, $11,832.58; inspection, $299; total expenditure, $12,131.58.
Work commenced 7th July; suspended 10th August, 1913.
Object of work: To provide channel below railway bridge to various wharfs along river front, and also turning basin.

Fraser River, B.C.—Under contract 9964 with Navigation Dredging Co. Dredge *Georgia*.

Quantity removed: 892 cubic yards, scow measurement, at 23½ cents per cubic yard, class "B" material, sand and clay.

No payment made. Yardage carried forward to 1914.

Work commenced 1st January, 1914; suspended 10th January, 1914.

Object of work: Maintenance of depth of sand heads controlling entrance to Fraser River ports.

Goderich, Ont.—Under contract No. 8925, with Marlton Dredging Co. Dredges *Goderich* and *Menesteing*.

Quantity removed: 33,678 cubic yards, scow measurement, at 25 cents per cubic yard, class "B" material, sand, gravel and mud: 192·1 cubic yards, place measurement, at $2.50 per cubic yard, class "A" rock.

Amount paid contractor, $8,899.75; inspection, $281.50; total expenditure, $9,181.25.

Work commenced, 21st July; completed 6th November, 1913.

Object of work: Widening entrance channel and enlarging turning basin in inner harbour.

Gunter's, N.B.—Under agreement with New Brunswick Construction Company. Dredges *Tantawanta* and *New Brunswick No. 1*.

Quantity removed: 2,243·3 cubic yards, place measurement, at 30 cents per cubic yard, class "B," clay, sand, gravel, stone.

Amount paid contractor, $672.99; inspection, $85.46; total expenditure, $758.45.

Work commenced 25th July; completed 20th August, 1913.

Object of work: Dredging basin in front of wharf.

Gerow's, N.B.—Under agreement with New Brunswick Construction Company. Dredges *Tantawanta* and *New Brunswick No. 1*.

Quantity removed: 1,173 cubic yards, place measurement, at 30 cents per cubic yard, class "B," mud.

Amount paid contractor, $351.90; inspection included in Gunter's.

Work commenced 21st August; completed 22nd August, 1913.

Object of work: Dredging basin in front of wharf.

Hilyard's Wharf, N.B.—Under agreement with New Brunswick Construction Co. Dredge *New Brunswick No. 1*.

Quantity removed: 508·5 cubic yards, place measurement, at 48 cents per cubic yard, mud and rocks, class "B."

Amount paid contractor, $246.62; inspection, $15; total expenditure, $261.62.

Work commenced 25th April; completed 30th April, 1913.

Hatfield's point, N.B.—Under agreement with New Brunswick Construction Co. Dredge *New Brunswick No. 1*.

Quantity removed: 15,176·24 cubic yards, place measurement, at 30 cents per cubic yard, class "B," mud and sawdust; 3,000 cubic yards cast-over at 20 cents per cubic yard.

Amount paid contractor, $5,000; inspection, $75; total expenditure, $5,075.

Work commenced 23rd May; completed 30th June, 1913.

Object of work: Dredging approach to mill wharf and basin.

Honey Harbour, Ont.—Under agreement with Canadian Dredging Co. Dredge *Leland*.

Quantity removed: 7,100 cubic yards, place measurement, at 36½ cents per cubic yard, class "B," clay, sand, gravel and boulders.

Amount paid contractor, $2,591.50; inspection, $43; total expenditure, $2,634.50.

Work commenced, 23rd June; completed 3rd July, 1913.

Object of work: Improvement by widening and deepening channel.

Honey Harbour, Ont.—Under agreement with Penetang Dredging Co., 1912. Dredge *Hackett.*

Quantity removed: 935 cubic yards, scow measurement, at 25 cents per cubic yard, class "B," sand.

Amount passed for payment, $233.75.

Work commenced 19th November, 1912; suspended for season, 26th November, 1912.

Hilton, Ont.—Under contract No. 9519 with Soo Dredging and Construction Company. Dredge *No. 5.*

Quantity removed: 2,132 cubic yards, place measurement, at 32 cents per cubic yard, class "B," sand and clay.

Amount paid contractor, $682.24; inspection included in Bruce Mines.

Work commenced 22nd September; completed 24th October, 1913.

Object of work: Dredging turning basin inside southwest end of wharf.

Island river, N.B.—Under contract No. 9634 with W. J. Poupore Co. Dredge *Prince Louis.*

Quantity removed: 327.63 cubic yards cast-over. No payment made. Cancellation of this contract recommended.

Object of work: Dredging approach channel.

I.C.Ry. Wharf, St. John, N.B.—Under agreement with Beaver Dredging Company. Dredge *Beaver.*

Quantity removed, 11,938·6 cubic yards, scow measurement, at 40 cents per cubic yard, class "B," mud.

Amount paid contractor, $4,775.44.

Work commenced 25th October; completed 27th November, 1913.

Object of work: Improvement of berth alongside wharf.

Jones Harbour, N.S.—Southern Salvage Company. Removal of boulders.

SS. *Coastguard* at $90 per day, $2,498.

Object of work: Removal of boulders in channel.

Kincardine, Ont.—Under agreement with Marlton Dredging Co. Dredge *Goderich.*

Quantity removed: 14,000½ cubic yards, scow measurement at 35 cents per cubic yard, class "B," mud and sand.

Amount paid contractor, $4,900.17.

Work commenced 29th May; completed 17th June, 1913.

Object of work: improving entrance channel and enlarging turning basin in inner harbour.

Kingsville, Ont.—Under contract No. 8920 with W. E. Hardison. Dredge *Old Glory.*

Quantity removed: 19,965¾ cubic yards, inside harbour, at 15 cents per cubic yard, scow measurement; 5,050⅝ cubic yards, outside harbour, at 25 cents per cubic yard, scow measurement, class "B," muck, clay, and sand.

Amount paid contractor, $4,257.47; inspection, $171.60; total expenditure, $4,429.07.

Work commenced 21st July; completed 18th September, 1913.

Object of work: Enlarging turning basin in inner harbour, and maintaining safe depth at entrance.

Killarney, Ont.—Under contract No. 9730 with C. S. Boone Dredging & Construction Company. Dredge *Kingsford.*

Quantity removed: 17,247 cubic yards, place measurement, at 32 cents per cubic yard, class "B," sand and clay.

Amount passed for payment, $5,519.04; inspection, $773.42; total expenditure, $6,292.46.

Work commenced 9th September; suspended for season 20th October, 1913.

Object of work: Deepening channel entrance.

Larry's Cove, N.S.—October, November, December, $596.76.

Object of work: Removing boulders from channel.

Little Aldouane, N.B.—Under agreement with Fidèle Savoie. Dredge *St. Louis.*

Quantity removed: 79 cubic yards, scow measurement, at 30 cents per cubic yard, class "B," mud.

Amount paid contractor, $23.70; inspection, $6.65; total expenditure, $30.35.

Work commenced 20th March; completed 21st March, 1913.

Loggieville, N.B.—Under agreement with Northern Dredging and Construction Company. Dredge *Hayward.*

Quantity removed: 4,155 cubic yards, place measurement, at 30 cents per cubic yard, class "B," mud.

Amount paid contractor, $1,246.50; Inspection, $30.80; total expenditure, $1,277.30.

Work commenced, 7th June; completed 17th June, 1913.

Little Black River, N.B.—Under contract No. 9508 with F. A. Fowlie. Dredge *Fowlie.*

Quantity removed: 21,929·65 cubic yards, scow measurement, at 35 cents per cubic yard, class "B," mud and clay.

Amount passed for payment, $7,675.38; inspection, $364.38; total expenditure, $8,039.76.

Work commenced, 18th July; suspended for season, 28th November, 1913.

Object of work: Dredging channel and turning basin.

Little Lorraine, N.S.—Under contract No. 9640 with Atlantic Dredging Co. Dredge *Quincy.*

Quantity removed: 40,900 cubic yards, scow measurement, at 30 cents per cubic yard, class "B," mud, sand, and gravel: 49·19 cubic yards, place measurement, at $6 per cubic yard, boulders.

Amount paid contractor, $12,565.14; inspection, $345.23; total expenditure, $12,910.37;

Work commenced, September 6; completed December 4, 1913.

Object of work: Dredging channel across entrance bar.

Little Current, Ont.—Under contract No. 9589 with Soo Dredging and Construction Company. Dredge *Excelsior.*

Quantity removed: 17,883⅝ cubic yards, place measurement, at $2.90 per cubic yard, class "A," rock; 1,983⅛ cubic yards, cast-over, class "A," at $1.93⅛ per cubic yard.

Amount passed for payment, $55,697; inspection, $1,386.99; total expenditure, $57,083.99.

Work commenced September 23; suspended for season December 15, 1913

Marble Cove, N.B.—Under agreement with New Brunswick Construction Company. Dredge *New Brunswick No. 1.*

Quantity removed: 15,870·6 cubic yards, class "B," mud, place measurement, at 24 cents per cubic yard; removal of wreckage, $313.50.

Amount paid contractor, $4,122.44; inspection, $90; total expenditure, $4,212.44.

Work commenced March 29; completed May 7, 1913.

Object of work: To dredge a channel or basin 11 feet deep.

Muskoka Narrows, Ont.
Day labour, $4,473.13.
Object of work: Widening channel at the Narrows.

Moose Harbour, N.S.—Southern Salvage Company removal of boulders, ss. *Coastguard* at $90 per day, $2,999.50.
Object of work removal of ledge rock at entrance to harbour.

Murray Harbour, P.E.I.—Under contract No. 9444 with V. T. Bartram. Dredge *E. B. No. 1.*
Quantity removed: 23,457·3 cubic yards, scow measurement, at 24 cents per cubic yard, mud and sand.
Amount passed for payment, $5,629.75; inspection, $146.40; total expenditure, $5,776.15.
Work commenced July 15th; suspended for season August 31st, 1913.
Object of work: Widening and deepening entrance channel.

Mabou, N.S.—Under agreement with Atlantic Dredging Company. Dredge *Pepperell.*
Quantity removed: 9,600 cubic yards, scow measurement, at 30 cents per cubic yard, class "B," mud.
Amount paid contractor, $2,880; inspection, $42.45; total expenditure, $2,922.45.
Work commenced, July 15; completed July 29, 1913.
Object of work: Dredging channel in river to public wharf at village.

Mill Cove, N.S.—Under contract No. 8959 with Halifax Dredging Co. Dredge *No. 2.*
Quantity removed: 28,568½ cubic yards, scow measurement, at 29 cents per cubic yard, class "B" material, mud, clay, and shale rock.
Amount paid contractor, $8,284.86; inspection, $37; total expenditure, $8,321.86.
Work commenced 19th August, 1913; completed 14th November, 1913.
Object of work: Dredging mooring space and berths at wharf.

Muskoka Narrows, Ont.—
Day labour, 1,000 cubic yards rock. Expenditure, $4,473.13. August 1 to December 8, 1913.
Object of work: To widen and deepen present channel by removal of rock to give 10 feet.

McKellar River, Ont.—Under contract No. 8787 with Great Lakes Dredging Company. Dredges *No. 1, No. 6, No. 8, No. 15* and *Shuniah.*
Quantity removed: 1,120,134 cubic yards, place measurement, clay and boulders, class "B," 1,065,134 cubic yards, at 17½ cents per cubic yard; glacial deposit at 60 cents per cubic yard, 55,000 cubic yards; total, 1,120,134 cubic yards.
Amount passed for payment, $262,964.20; including a payment on 52,000 cubic yards glacial deposit removed in 1912 and paid for at 17½ cents per cubic yard and allowed at 60 cents in 1913 and difference of 42½ cents per cubic yard paid in 1913; inspection, $1,576; total expenditure, $264,540.20.
Work commenced 1st May; suspended for season, December 7, 1913.

McAlpine's, N.B.—Under agreement with New Brunswick Construction Company. Dredges *Tantawanta* and *New Brunswick No. 1.*
Quantity removed: 1,156·6 cubic yards, place measurement, at 30 cents per cubic yard, class "B," clay and rock.
Amount paid contractor, $346.98; inspection included in Gunter's.
Work commenced August 18; completed August 20, 1913.
Object of work: Dredging basin in front of wharf.

Newcastle, N.B.—Under agreement with Northern Dredging and Construction Company. Dredges *Hayward* and *Invader.*

Quantity removed: 9,734 cubic yards, place measurement, at 30 cents per cubic yard, class "B," clay and gravel.

Amount paid contractor, $2,920.20; inspection, $108.25; total expenditure, $3,028.45.

Work commenced May 26; completed July 15, 1913.

Object of work: Deepening berths along wharves.

Napanee, Ont.—Under contract No. 8934 with W. E. Phin. Dredge *Hamil.*

Quantity removed: 56,448 cubic yards, place measurement, at 19 cents per cubic yard, class "B," clay, sand, gravel, boulders and sawdust.

Amount paid contractor, $11,284.29; inspection, $353.04; total expenditure, $11,637.34.

Work commenced June 9; completed September 27, 1913.

Object of work: Completion of channel from Bay of Quinte to town of Napanee.

Northwest Miramichi River, N.B.—Under contract No. 9565 with Peter England. Dredge *Peter England.*

Quantity removed: 12,993·8 cubic yards, scow measurement, at 37 cents per cubic yard, class "B," sand.

Amount passed for payment, $4,807.71; inspection, $180.50; total expenditure, $4,988.21.

Work commenced August 19; suspended for season November 1, 1913.

Object of work: Dredging channel.

Nelson and Wellington Slips and Navy Island Bar, St. John Harbour, N.B.—Under contract No. 9610 with Maritime Dredging and Construction Co. Dredge *Beacon Bar.*

Quantity removed: 40,087 cubic yards, place measurement, at 34½ cents per cubic yard, class "B" material, mud and gravel.

Amount passed for payment, $13,830.02; inspection, $610.50; total expenditure, $14,440.52.

Work commenced 22nd December, 1913; suspended 31st March, 1914.

Object of work: Deepening berths of schooners at slips. Removal of foot of Navy Island bar to shorten ferry route.

Orillia, Ont.—Under agreement with D. Conroy.

Quantity removed: 2,958·64 cubic yards, place measurement, at 50 cents per cubic yard, class "B," clay.

Amount paid contractor, $1,479.32; inspection, $34.25; total expenditure, $1,513.57.

Work commenced, November 1; completed November 8, 1913.

Object of work: To improve present channel to wharf.

Point Edward, Ont.—

Inspection, $1,110.90.

Port Stanley, Ont.—Under contract No. 9140 with Windsor Dredging Company. Dredge *Peltier.*

Quantity removed: 58,691 cubic yards, scow measurement, class "B," at 27 cents per cubic yard, quicksand, silt and clay.

Amount paid contractor, $15,846.57; inspection, $210.20; total expenditure, $16,056.77.

Work commenced April 7, 1913; completed June 24, 1913.

Object of work: Improvement of entrance channel, maintenance of outer channel and turning basin.

Port Hope, Ont.—Under agreement with R. Weddell & Company. Dredge *Togo.*

Quantity removed: 10,000 cubic yards, scow measurement, class "B," at 23 cents per cubic yard, mud and sand.

Amount paid contractor, $2,300; inspection, $71.28; total expenditure, $2,371.28.

Work commenced April 29; completed May 14, 1913.

Picnic Island, Ont.—Under contract No. 7815 with C. S. Boone Dredging and Construction Company. Dredge *No. 14.*

Quantity removed: 56,495·4 cubic yards, scow measurement, class "A," at $1.70 per cubic yard, rock.

Amount passed for payment, $96,042.18; inspection, $488.22; total expenditure, $96,530.40.

Work commenced May 3 suspended for season, November 15, 1913.

Object of work: Improvement of channel.

Partridge Island wharf, St. John, N.B.—Carried forward from 1912—paid in 1913. Under agreement with Maritime Dredging and Construction Company. Dredge *Beacon Bar.*

Quantity removed: 1,337·5 cubic yards, scow measurement, class "B," mud and gravel, at 35 cents per cubic yard.

Amount paid contractor, $468.13.

Work commenced November 29, 1912 completed February 22, 1913.

Partridge Island, St. John, N.B.—Pipe-line. Under agreement with Maritime Dredging and Construction Company. Dredge *Cynthia.*

Quantity removed: 8,274·5 cubic yards, scow measurement, at 50 cents per cubic yard, sand and mud.

Amount paid contractor, $4,137.25.

Work commenced September 5, 1913; completed October 18, 1913.

Partridge Island, St. John, N.B.—Quarantine Wharf. Under agreement with Maritime Dredging and Construction Co. Dredge *Beacon Bar.*

Quantity removed: 1,177·1 cubic yards, class "B," scow measurement, at 50 cents per cubic yard, gravel.

Amount paid contractor, $588.55.

Work commenced 27th December, 1913; completed 6th January, 1914.

Perry Point, N.B.—Under contract No. 8945 with Maritime Dredging and Construction Co. Dredge *Beacon Bar.*

Quantity removed: 14,615·4 cubic yards, scow measurement, at 19½ cents per cubic yard, class "B," mud and sand.

Amount paid contractor, $2.850; inspection, $38.67; total expenditure, $2,888.67.

Work commenced 23rd May; completed 4th June, 1913.

Object of work: Dredging between Perry Point and Murphy's.

Penetanguishene, Ont.—Under contract No. 9090 with Penetanguishene Dredging Co. Dredge *Hackett.*

Quantity removed: 10,361 cubic yards, place measurement, at 15 cents per cubic yard, class "B," sand and mud.

Amount paid contractor, $1,554.15; inspection, $184.75; total expenditure, $1,738.90.

Work commenced 25th August; completed 2nd October, 1913.

Object of work: Deepening harbour along G. T. Esplanade.

Picton, Ont.—Under contract No. 8990 with Fallon Bros. Dredges *D. Stewart* and *No. 4.*

Quantity removed: 105,547 cubic yards, place measurement, at 17 cents per cubic yard, class "B," mud, rock and clay. Above quantity includes an allowance of 16,899 cubic yards for increase of depth from 12 to 14 feet on work done in 1912.

Amount paid contractor, $17,942.99; inspection, $781.75; total expenditure, $18,724.74.

Work commenced 31st May; completed 30th September, 1913.

Object of work: Improvement of channel and harbour.

Port Burrell, Ont.—Under contract No. 9448 with C. S. Boone, Dredging and Construction Co. Dredge *Meade.*

Quantity removed: 45,299 cubic yards, scow measurement, at 27½ cents per cubic yard, sand and clay.

Amount paid contractor, $12,627.10; inspection, $157.19; total expenditure, $12,784.29.

Object of the work: Improvement at entrance to harbour, and deepening and widening channel between piers.

Work commenced 18th June; completed 19th September, 1913.

Port Arthur, Ont.—Under contract No. 9490 with W. E. Phin. Dredges *Kennequhair* and *Chief.*

Quantity removed: 528.794 cubic yards, scow measurement, at 13 cents per cubic yard, class "B," sand and clay.

Amount passed for payment, $68,743.22; less amount deducted for revision of scow's capacities, 1910-13, $8,295; inspection, $988; total expenditure, $61,436.22.

Work commenced 25th June; suspended for season, 13th December, 1913.

Port Mulgrave, N.S.—Under contract No. 9638 with Coastal Dredging and Construction Company. Dredge *Cadeco.*

Quantity removed: 35,441 cubic yards, place measurement, at 29 cents per cubic yard, class "B," mud; 2,170 cubic yards cast-over at 19½ cents; and removal of wreckage at $905.58.

Amount paid contractor, $11,603; inspection, $307.60; total expenditure, $11,910.60.

Work commenced, 30th August; completed 21st November, 1913.

Object of work: To improve anchorage basin.

Pitt River, B.C.—Under contract No. 9587 with Pacific Dredging Company. Dredge *Robeson.*

Quantity removed: 477,590 cubic yards, place measurement, at 18 cents per cubic yard, class "B," sand.

Amount passed for payment, $85,966.20.

Work commenced 11th November, 1913; suspended for year, 31st March, 1914.

See also Coquitlam.

Object of work: Dredging channel.

Public Landing, N.B.—Under agreement with New Brunswick Construction Company. Dredge *New Brunswick No. 1.*

Quantity removed: 1,489 cubic yards, place measurement, at 28 cents per cubic yard, class "B," stone and mud.

Amount paid contractor, $416.92; inspection, $72.82; total expenditure, $489.74.

Work commenced 24th October; completed 30th October, 1913.

Petit de Grat, N.S.—Under contract No. 9637 with Coastal Dredging and Construction Company. Dredge *Cadeco.*

Quantity removed: 13 cubic yards, scow measurement, at $5 per cubic yard, class "A," boulders; 1,875 cubic yards cast-over at 36 cents per cubic yard; 9,583 cubic yards at 54 cents per cubic yard.

Amount passed for payment, $5,914.82; inspection, $92.70; total expenditure, $6,007.52.

Work commenced 29th November, 1913; suspended for season, 17th January, 1914.

Object of work: Dredging channel to wharf.

River St. Lawrence, Que.—Kingston to Brockville.—Under contract No. 7116 with Montreal General Contracting Co.

Quantity removed: 8218·5 cubic yards, place measurement, class "A" material, rock, at $3.95 per cubic yard.

Amount paid contractor, $32,463.05; inspection, $1,213.95; total expenditure, $33,677.
Work commenced 10th May 1913; completed 6th Dec, 1913.
Object of work: Continuation of improvement of Middle or Canadian channel.

Richibucto, N.B.—Under agreement with W. E. Forbes. Dredges *St. Louis, Star* and *St. Charles.*
Quantity removed: 4,785.09 cubic yards, place measurement, class "B," at 45 cents per cubic yard, sand and mud; for removal of logs, $42.65.
Amount paid contractor, $2,153.29; inspection, $228.55; total expenditure, $2,424.49.
Work commenced 13th May; completed 8th September, 1913.

Richibucto, N.B.—Under contract No. 8547 with W. J. Poupore Co. Dredges *King Edward* and *Prince Ito.*
Quantity removed: 33,910·1 cubic yards, scow measurement, at 30 cents per cubic yard, class "B," sand, clay, and stones.
Amount paid contractor, $10,173.03; inspection, $189.70; total expenditure, $10,362.73.
Work commenced 23rd June; completed 31st August, 1913.
Object of work: Dredging entrance channel through bar at entrance to harbour.

River Bourgeois, N.S.—Under agreement with Coastal Dredging and Construction Co. Dredge *Cadeco.*
Quantity removed: 18,386 cubic yards, scow measurement, at 22 cents per cubic yard, class "B," clay, boulders, sand, and mud; 12·9 cubic yards, class "A," at $8.50 per cubic yard, boulders.
Amount paid contractor, $4,154.57; inspection, $85.82; total expenditure, $4,240.39.
Work commenced 28th May; completed 21st June, 1913.
Object of work: Dredging entrance channel to greater width.

Reed's Point, N.B.—Under agreement with New Brunswick Construction Co. Dredge *No. 1.*
Quantity removed: 2,972·4 cubic yards, scow measurement, at 30 cents per cubic yard, class "B," gravel and hard-pan.
Amount paid contractor, $891.72; inspection, $22.72; total expenditure, $914.44
Work commenced 14th May; completed 20th May, 1913.
Object of work: Cleaning up basin at face of wharf.

River St. Maurice, Que.—Under agreement with Antoine St. Pierre. Dredge *St. Pierre.*
Quantity removed: 19,402 cubic yards, scow measurement, at 12 cents per cubic yard, class "B," sand.
Amount paid contractor, $2,328.24; inspection, $93.05; total expenditure, $2,421.29.
Work commenced 13th May; completed 31st May, 1913.

River St. Maurice, Que.—Under contract No. 9449 with W. J. Poupore Co. Dredges *Prince Willie* and *Duke of York.*
Quantity removed: 57,929 cubic yards, scow measurement, at 15 cents per cubic yard, class "B," clay, sand and mud (including 2,113 cast-over) 10 cents.
Amount paid contractor, $8,583.70; inspection, $409.23; total expenditure, $8,992.93.
Work commenced 4th June; completed 18th September, 1913.
Object of work: To improve middle and eastern channels of river.

River St. Francis, Que.—Under contract No. 8604 with Bastien Laurin and Leitch. Dredge *No. 6.*
Quantity removed: 88,000 cubic yards, scow measurement, at 16 cents per cubic yard, class "B"; 59,999 cubic yards, place measurement, at 16 cents per cubic yard, class "B," clay and sand.

Amount paid contractor, $23,679.84; inspection, $1,875.30; total expenditure, $25,555.14.
Work commenced 2nd June; completed 7th November, 1913.
Object of work: Dredging channel.

River du Loup en Haut, Que.—Under contract No. 9480 with W. J. Poupore Company. Dredge *Prince Willie.*
Quantity removed: 84,333 cubic yards, scow measurement, at 14 cents per cubic yard, mud, sand and clay.
Amount paid contractor, $11,806.62; inspection, $310.45; total expenditure, $12,117.07.
Work commenced 8th July; completed 4th October, 1913.
Object of work: To maintain channel in lake St. Peter to mouth of river.

Rivière Bois Blanc, Que.—Day labour, $1,973.49.
Object of work: To improve discharge of river, and prevent flooding of lands.

River St. Louis, Que.—
Day labour, $2,421.20.
Object of work: To improve discharge of river, and prevent flooding of lands.

River St. Louis, N.B.—
Day labour, $937.37; surveys, etc., $9.90; total, $947.27.
Object of work: Dredging entrance channel.

River Blanche, Que.—
Day labour, $1,359.52.
Object of work: To improve discharge of river, and prevent flooding of lands.

River St. Charles, Que.—Under agreement with La Cie Etienne Dussault. Dredge *Stephen.*
Quantity removed: 51,780 cubic yards, place measurement, at 11 cents per cubic yard, class "B," sand.
Amount paid contractor, $5,695.80.
Work commenced 28th June; completed 26th November, 1913.

River Saguenay, Que.—(See also Chicoutimi Wharf.) Under contract No. 8738 with Continental Dredging Co. Dredge *Algonquin.*
Quantity removed: 40,306 cubic yards, scow measurement, at 32½ cents per cubic yard, clay.
Amount paid contractor, $11,147.50; inspection, $441.44; total expenditure, $11,588.94.
Work commenced 5th June, 1913; suspended 4th July, 1913.
NOTE.—6,006 cubic yards carried forward to 1914, and paid for in final estimate issued 20th June, 1914.
Object of work: To continue dredging channel from deep water to Chicoutimi.

Round Bay Beach, N.S.
Day labour, $1,348.40.
Work started in June; completed in September.
Object of work: Dredging entrance channel below bridge.

River St. John, N.B.—Removal of snags.
Day labour, $2,023.62.

Rainy River, Ont.—Under contract No. 9630 with J. T. Horne. Dredge *Moose.*
Quantity removed: 29,728 cubic yards, place measurement, at 45 cents per cubic yard, sand and clay.
Amount passed for payment, $13,377.60; inspection, $199.50; total expenditure, $13,577.10.
Work commenced 15th September, 1913; suspended for season 10th November, 1913.
Object of work: Continuation of deepening and widening channel.

St. John, N.B.—See Beacon Bar, Foul Ground, Partridge Island, Nelson and Wellington slips, Navy Island bar, I.C.Ry. wharf, Thorne's wharf, Hilyard's wharf.

Severn River, Ont.—
Day labour, $3,161.20.
Object of work: Improvement of channel between village of Severn and Sparrow lake.

Swim's Point, N.S.—
Object of work: Removing boulders from channel and wharf.

St. Croix River, N.B.—Bay State Dredging Co. Dredge *No. 14.*
A total of 164,443 cubic yards mill waste and mud.
Inspection, $1,364.70.
Work commenced 4th May; completed 6th December, 1913.
Object of work: Improvement of river channel.

St. Mathieu, Que.—
Day labour, $4,846.19.
Dredging channel from St. Francois to St. Fabien.

Sault Ste. Marie, Ont.—Under contract No. 8960 with Soo Dredging and Construction Co. Dredges *No. 3, No. 5* and *No. 8.*
Quantities removed: 37,174 cubic yards class "A" material, rock, at $3.47 per cubic yard, place measurement; 5,046 cubic yards class "B" material, clay and gravel and mud, at 92 cents per cubic yard, place measurement; and at A. C. Ry. slip, 2,519 cubic yards class "A" material, rock, at $3.47 per cubic yard, place measurement; 17,635 cubic yards class "B" material, clay, sand, gravel, and mud, at 50 cents per cubic yard, place measurement.
Amount paid contractor, $133,636.10; amount paid contractor, $17,558.43; inspection, $3,335.94; total expenditure, $154,530.47.
Work commenced 30th April, 1913; suspended 27th December, 1913.
Object of work: Improvement of approaches to Government wharf and dredging slip at foot of Elgin street.

Sault Ste. Marie, Ont.—Under contract No. 9965 with Soo Dredging and Construction Company. Dredges *No. 3, No. 5* and *No. 8.*
Quantity removed: 6,302 cubic yards class "A" material, rock, at $3.47 per cubic yard, place measurement; 4,171 cubic yards class "B" material, clay, sand, gravel and mud, at 92 cents per cubic yard, place measurement.
Amount paid contractors, $25,705.26.
Work commenced 24th April, 1913; suspended 20th December, 1913.
Object of work: Improvement of approaches.

Shippegan, N.B.—Under contract No. 8545 with W. J. Poupore Co. Dredge *Prince Louis.*
Quantity removed: 34,553 cubic yards, place measurement, at 40 cents per cubic yard, sand and clay.
Amount passed for payment, $14,338.22; inspection, $367.50; total expenditure, $14,705.72.
Work commenced 1st to 19th November, 1912; suspended 25th November, 1913.
1912.—2,233·5 cubic yards, place measurement, at 40 cents.
No payment made, amount carried forward to 1913.
Object of work: Dredging entrance channel.

Squamish, B.C.—Under agreement with Pacific Dredging Co.
Quantity removed: 2,400 cubic yards.
Amount passed for payment, $1,100.
Work commenced May ——; suspended for season May, 1912.
Object of work: Dredging channel to Newport and turning basin thereat.

St. George, N.B.—Under contract No. 9500 with J. S. Gregory. Dredges *Keta* and *Asp.*

Quantity removed: 43,070·6 cubic yards, scow measurement, at 50 cents per cubic yard, edgings and sand.

Amount passed for payment, $22,377.91; inspection, $563.18; total expenditure, $22,941.09.

Work commenced 17th July; suspended for season 1st December, 1913.

Object of work: Dredging channel 75 feet wide in river and basin at St. George wharf.

South Andrews, N.B.—Under contract No. 9521 with Maritime Dredging and Construction Co. Dredge *Iroquois.*

Quantity removed: 24,953·7 cubic yards, scow measurement, class "B" material, clay, sand, mud, and gravel at 40 cents per cubic yard.

Amount paid contractor, $9,981.48; inspection, $173.08; total expenditure, $10,154.56.

Work commenced 29th September; suspended for season 3rd November, 1913.

Object of work: Completion of eastern entrance channel and basins in front of C.P.R. and public wharves.

St. Stephen, N.B.—Under contract No. 9522 with Maritime Dredging and Construction Co.—Dredge *Beacon Bar.*

Quantity removed: 11,864·2 cubic yards, place measurement, at 70 cents per cubic yard, class "B," mud, clay, and boulders; 118.54 cubic yards, place measurement, at $7 per cubic yard, class "A," rock.

Amount paid contractor, $9,614.03; inspection, $262.35; total expenditure, $9,876.38.

Work commenced 24th October; completed 11th December, 1913.

Object of work: Dredging basin beside C.P.R. wharf.

Shag Harbour, N.S.—Southern Salvage Co. Removal of boulders.

SS. *Coastguard* at $90 per day, $4,495.50.

Object of work: Removal of boulders in passage through rocky reef.

St. Fulgence, Que.—Day labour, $1,485.65.

Work done from June to November, 1913.

Object of work: Dredging channel from deep water to wharf.

Shampers, N.B.—Under agreement with New Brunswick Construction Co. Dredge *New Brunswick.*

Quantity removed: 1,796·4 cubic yards, place measurement, at 30 cents per cubic yard, class "B" material, mud.

Amount paid contractor, $538.92.

Work commenced 2nd September; completed 6th September, 1913.

Object of work: Removing shoal from channel approach to Government wharf.

St. Martins, N.B.—Under agreement with Robert Carson.

Quantity removed: 106 cubic yards, place measurement, at 70 cents per cubic yard, class "B," sand, clay, and gravel.

Amount paid contractor: $74.20.

Work commenced 11th December; completed 11th December, 1913.

Object of work: Improvement of berths and approach channel.

Severn River, Ont.—

Day labour, expenditure, $3,161.20.

500 cubic yards, class "A"; 3,800 cubic yards, class "B."

25th July to 7th November, 1913.

Object of work: Removal of rock shoal at Scull Island, sand shoals at Dilworth's and at the entrance to Sparrow lake.

Tiffin, Ont.—Under contract No. 6866 with Canadian Dredging Co. Dredges *Monarch, Leland* and *Sydenham.*

Quantity removed: 2,643½ cubic yards, class "A" at $2.25 per cubic yard, scow measurement; 3,166⅔ cubic yards, class "B," at 29 cents per cubic yard, scow measurement; rock, mud, clay, sand and gravel.

Amount paid contractor, $6,865.83; inspection, $108.15; total expenditure, $6,973.98.

Work commenced 25 April; completed 18th July, 1913.

Object of work: Completion of slip in front of G.T.R. elevator.

Telegraph and Nigger Island, Ont.—Under contract No. 9015 with R. Weddell & Co. Dredges *Trenton* and *I.X.L.*

Quantity removed: 10,753 cubic yards, place measurement, at $4.50 per cubic yard, class "A," rock; 13,967 cubic yards, place measurement, at $4 per cubic yard, class "A," rock.

Amount paid contractor, $73,588.50; inspection, $828.96; total expenditure, $74,417.46.

Work commenced 8th May; completed 27th October, 1913.

Object of work: Continuation of improvement of channel.

NOTE.—$30,668.80 deducted from contractor's final work. Work done, 7,667 cubic yards at $4, over and above quantities authorized.

Trenton, Ont.—Under contract No. 9473 with R. Weddell & Co. Dredges *Trenton, Togo* and *I.X.L.*

Quantity removed: 50,000 cubic yards, place measurement, at 22 cents per cubic yard, class "B," mud; 13,160 cubic yards, class "A," rock drilled and blasted but not removed, at $2.75.

Amount passed for payment, $47,190; inspection, $953.68; total expenditure, $48,143.68.

Work commenced 10th August; suspended for season 6th December, 1913.

Object of work: Dredging entrance channel to lower harbour.

Trenton, Ont.—Under contract No. 9482 with John E. Russell. Dredge *Dragon Rouge.*

Quantity removed: 6,138 cubic yards place measurement, at $3.30 per cubic yard, rock.

Amount paid contractor, $20,255.40; inspection, $48.75; total expenditure, $20,304.15.

Work commenced 10th August; completed

Object of work: Removal of hog's back, south of swing bridge, in front of Polly's wharf.

Trade and Commerce Slip, Port Arthur, Ont.—Under contract No. 9624 with Great Lakes Dredging Co. Dredges *Shuniah* and *No. 6.*

Quantity removed: 166,734 cubic yards, place measurement, at 25 cents per cubic yard, class "B," sand and clay.

Amount paid contractor, $41,683.50; inspection, $212; total expenditure, $41,895.50.

Work commenced 22nd September; completed 17th November, 1913.

Thorne's Wharf, St. John, N.B.—Under agreement with Beaver Dredging Co. Dredge *Beaver.*

Quantity removed: 936 cubic yards, scow measurement, class "B" at 44 cents per cubic yard, mud.

Amount paid contractor, $411.84.

Work commenced 18th October, 1912; completed 18th October, 1912.

Three Rivers, Que.—Under agreement with Antoine St. Pierre. Dredge *St. Pierre.*

Quantity removed: 20,539 cubic yards, scow measurement, at 15 cents per cubic yard, class "B," sand.

Amount paid contractor, $3,080.85; inspection, $134.72; total expenditure, $3,215.57.

Work commenced 24th September; completed 28th October, 1913.

Object of work: Dredging shelter basin.

Three Rivers, Que.—Harbour Commissioners of Three Rivers.
Amount paid: 15,426 cubic yards, scow, at 20 cents, $3,085.20; inspection, $70.80; total expenditure, $3,156.
Work commenced 17th August; completed 5th September, 1912.

Thetis and Kuper Islands, B.C.—Under agreement with Vancouver Development Co.
Quantity removed: 3,758 cubic yards, place measurement, class "B" at 90 cents per cubic yard.
Amount paid contractor, $3,382.20.
Work commenced 4th September; completed 7th October, 1913.

Victoria Harbour, Ont.—Under contract No. 6865 with Canadian Dredging and Construction Co. Dredges *Sydenham, Monarch, Leland* and *Excelsior.*
Quantity removed: 276,757·33 cubic yards, scow measurement: class "A," rock, 6,482·16 cubic yards at $2.25; class "B," 260,598·17 cubic yards at 12½ cents; cast-over, 9,677 cubic yards at 11 cents; class "B," clay, sand, gravel, mud and hard-pan.
Amount paid contractor, $48,224.10; inspection, $1,155.55; total expenditure, $49,379.65.
Work commenced 30th April, 1913; completed 31st July, 1913.
Object of work: Completion of improvements.

Vernon River, P.E.I.—Under contract No. 9471 with Maritime Dredging and Construction Co. Dredge *Beacon Bar.*
Quantity removed: 86,487·6 cubic yards, scow measurement, at 27½ cents per cubic yard, class "B," mud.
Amount paid contractor, $23,784.09; inspection, $264; total expenditure, $24,048.09.
Work commenced 10th July; completed 30th September, 1913.
Object of work: Deepening and widening river channel.

Weymouth, N.S.—Under contract No. 9028 with Halifax Dredging Co. Dredge *Ferguson.*
Quantity removed: 58,697 cubic yards, scow measurement, at 48½ cents per cubic yard, class "B," stones, clay, mud, and gravel.
Amount paid contractor, $28,468.04; inspection, $261,88; total expenditure, $28,729.92.
Work commenced 2nd May; completed October 13th, 1913.
Object of work: Improvement of channel from St. Mary's bay to town wharves.

Whitehead, N.B.—Under agreement with New Brunswick Construction Co. Dredge *New Brunswick No. 1.*
Quantity removed: 2,285·9 cubic yards, scow measurement, class "B" at 30 cents per cubic yard, gravel and hard-pan.
NOTE.—490·5 cubic yards of above removed in 1912 but not paid for.
Amount paid contractor, $685.77; inspection, $12; total expenditure, $697.77.
Work commenced 9th May; completed 13th May, 1913.
Object of work: Dredging at wharf.

Whitby, Ont.—Under contract No. 9487 with John E. Russell. Dredges *Jack Canuck* and *Dragon Rouge.*
Quantity removed: 96,305·5 cubic yards, place measurement, at 16 cents per cubic yard, class "B," sand and mud.
Amount paid contractor, $15,408.88; inspection, $499.45; total expenditure, $15,908.33.
Work commenced 31st July; completed 15th December, 1913.
Object of work: Deepening harbour.

Windsor, N.S.—Under agreement with Thos. A. Mosher. Hand dredging.
Quantity removed: 4,200 cubic yards, place measurement, at 60 cents per cubic yard, class "B," mud.

Amount paid contractor, $2,520; inspection, $80; total expenditure, $2,600.
Work commenced 4th August; completed 10th September, 1913.
Object of work: Dredging at Government wharf.

Walker River, Ont.—Under contract No. 9519 with Soo Dredging and Construction Co. Dredge *No. 5.*
Quantity removed: 6,770 cubic yards, place measurement, cast-over at 21½ cents per cubic yard, class "B."
Amount paid contractor, $1,444.27; inspection included in Bruce Mines.
Work commenced 7th October; completed 17th October, 1913.
Object of work: Removal of sandbar at mouth of river.

Woods Harbour, N.S.—Southern Salvage Co. Removal of boulders.
SS. *Coast Guard* at $90 per day, $3,993.30.
Object of work: Removal of rock ledge known as Narrow rock in centre of channel.

White's Cove, N.B.—Under agreement with St. John River Dredging and Construction Co. Dredge *Tantawanta.*
Quantity removed: 836·2 cubic yards, place measurement, at 30 cents per cubic yard, clay and rocks.

Amount paid contractor, $250.86; inspection, $36; total expenditure, $286.86.
Work commenced 14th August; suspended 16th August, 1913.
Object of work: Dredging approach basin in front of wharf.

Whycocomagh, N.S.—Under contract No. 9641 with Atlantic Dredging Co. Dredge *Pepperell.*
Quantity removed: 38,862 cubic yards, scow measurement, at 19 cents per cubic yard, class "B," mud.
Amount passed for payment, $7,383.78; inspection, $249.95; total expenditure, $7,633.73.
Work commenced 25th September; suspended for season 20th December, 1913.
Object of work: Dredging entrance channel, turning basin and berths at public wharfs.

Young's Cove, N.B.—Under agreement with St. John Dredging and Construction Co. Dredge *Tantawanta.*
Quantity removed: 1,926·6 cubic yards, place measurement, at 30 cents per cubic yard, clay and rocks.
Amount paid contractor, $577.98; inspection included in White's Cove.
Work commenced 16th August; suspended 27th August, 1913.
Object of work: Dredging basin at wharf.

DREDGING PLANT UNDER CONTROL OF THE DEPARTMENT OF PUBLIC WORKS, 1914.

DEPARTMENTAL BUCKET-LADDER DREDGES, 1914.

Name.	Official Registry Number.	Tonnage.	When built.	Where built.	Builder.	Cost equipped.	Present estimated value.	Hull. Material.	Hull. Length O.A.	Hull. Beam O.A.	Hull. Working draft.	Hull. Draft loaded.	Main Engines. Type.	Main Engines. Size.	Main Engines. Maker.	Propelling Engines. Number.	Propelling Engines. Type.	Propelling Engines. Size.
						$	$		′	″	″	′						
P.W.D. No. 1	.....	{G. 1694 / R327·50}	1905	Sorel, Que	.....	612,784	600,000	Steel	147	42 0	12 0 F 15 0 A	18	Triple expansion	14″, 22″, & 36″ x 22″	Polson Iron Works.	2	Triple expansion.	14″, 22″ & 36″ x 22″.
P.W.D. No. 2	71,716	290	1875	Renfrew, Scotland	Wm. Simons & Co., Ltd.	100,000	30,000	Iron	176	30 0	11 0	15	Marine	28″ x 21″	Wm. Simons & Co., Ltd.	1	Marine	28″ x 21″.
P.W.D. No. 7	130,249	{G232·01 / N 46·69}	1872	Renfrew, Scotland	Wm. Simons & Co., Ltd.	110,000	75,000	Iron	132	21 0	8 0	6	Vertical, Low pressure.	....	Wm. Simons & Co., Ltd.	2	Fore and aft condensing.	22″ x 24″.
P.W.D. No. 306	129,529	{G677·38 / R434·75}	1910	Renfrew, Scotland	Wm. Simons & Co., Ltd.	210,000	200,000	Steel	200	36 6	11 0	....	Fore and aft compound.	18″ & 36″ x 24″.	W. Simons & Co., Ltd.	2	Fore and aft compound.	18″ & 36″ x 24″.

Name.	Boilers. Number.	Boilers. Type.	Boilers. Diameter.	Boilers. Length.	Boilers. Horse power.	Boilers. Fuel consumption per day of 10 hours.	Fuel. Capacity.	Fuel. Kind.	Working depth. Maximum.	Working depth. Minimum.	Length of Ladder.	Buckets. Number.	Buckets. Size.	Hoppers. Number.	Hoppers. Capacity of each.	Anchor cables. Number.	Anchor cables. Size.	Anchor cable engines. Size.	Anchor cable engines. Type	Condenser. Size.	Condenser. Type.	No. of crew.	Average capacity.	Cu. Yds. per hour. Clay.	Silt.	Sand.	Gravel.	Clay and silt.	Sand and gravel.	Boulder.
			″	′ ″					′	″	′ ″				Cu. yds								Cu. yds								
P.W.D. No. 1	2	Cylindrical	12 9	11 0	....	5 tons	150 tons	Soft coal	52	17	107 11	48	1 c.y.	2	500	6	1⅝″ & 1¼″	2-10″ x 12″	Simple	3′ 0″ x 8′ 5″	Surface.	22	....	1000	1000	....	1000	1000	[1]400	80
P.W.D. No. 2	1	Scotch Marine.	14 7	9 6	....	4 tons	60 tons	Sydney coal	28	11½	65 0	32	¾ c. y.	1	350	2	1⅛″.	7″x10″.	Simple	3′0″x6′ 0″.	Surface.	19	1200	100	150	200	200	130	200	..
P.W.D. No. 7	1	Scotch.....	10 0	9 0	....	[3] tons	70 tons	Soft coal	20	.7	51 0	25	4 o.ft.	1	90	12	⅞″, 1″, ⅜″	2-6″x	Simple	[3]612 tubes	Surface.	16	1000	200	200	100	200	200	100	..
P.W.D. No. 306	2	Scotch Marine.	10 0	12 9	....	20 bbls.	200 bbls.	Crude oil	60	15	130 0	44	24 c.ft	..	....	7	1⅛″, 1⅛″, 1¼″, 1″	8″x11″.	Simple	8′ 0″.	Surface.	43	3000	....	150	300	300	100	[4]200	..

[1]Includes boulders. [2]And donkey. [3]1¾″ tubes 6′ 0″ long. [4]Includes boulders.

DEPARTMENTAL HYDRAULIC DREDGES, 1914.

Name.	Official Registry Number.	Tonnage.	When built.	Where built.	Builder.	Cost equipped.	Present estimated value.	Hull. Material.	Hull. Length O. A.	Hull. Beam O. A.	Hull. Working draft.	Hull. Draft loaded.	Pumping Engines. Type.	Pumping Engines. Size.	Pumping Engines. Horse power.
						$	$		′ ″	′ ″	′ ″	′ ″			
P.W.D. No. 3	130,642	{G. 475 R. 319}	1900	Rotterdam	Lohnis & Co	60,398	45,000	Steel	162 0	28 0	10 6	13 0	Triple expansion	11 1/16″, 16 7/32″, 27 1/16″ x 18″.	300
P.W.D. No. 5			1906	Toronto	Polson Iron Works	183,770	183,000	Steel	117 0	52 0	6 0			14″, 22 x 36″	
P.W.D. No. 12	133,759	434·84	1913	St. John, N.B.	Phoenix Foundry & Mach. Co.	82,500	82,500	Steel	110 0	32 0	3 6		Triple expansion	8½″, 13½″ & 22″ x 16″	200
P.W.D. No. 201			1906	Selkirk, Man	Polson Iron Works	30,000	20,000	Wood	115 0	33 0	4 6		Compound	10″ & 20″ x 12″	
P.W.D. No. 303		4,023	1907	Danzig, Germany	Shichan & Co	250,000	235,000	Steel	200 0	34 6	{10 0 A. 5 0 F.}	{13 0 A. 15 0 F.}	Compound	2-13½″ & 25″ x 15″	270
P.W.D. No. 305		{G591·63 R319·38}	1901	New Westminster, B.C.	Polson Iron Works	130,172	100,000	Steel & wood	125 0	32 0	5 6		Triple expansion	13, 5″, 22″ & 36″ x 20″	500

Name.	Propelling Engines. Type	Propelling Engines. Size.	Propelling Engines. Horse power.	Boilers. Number	Boilers. Type.	Boilers. Diameter.	Boilers. Length.	Boilers. Horse power.	Fuel consumption per day of 10 hours.	Fuel. Capacity.	Fuel. Kind.	Size of suction.	Discharge Pipe. Size.	Discharge Pipe. Length.	Hopper. Number.	Hopper. Capacity Cu. Yds.	Working Depth. Maximum.	Working Depth. Minimum.	Average capacity Cu. Yds.	No. of crew.	Cu. Yds. per Hour. Sand.	Silt.	Clay.	Gravel.	Sand and gravel.	Sand and silt.	Sand, gravel and boulders.
						′ ″	′ ″					″	″	′			′	″									
P.W.D. No. 3				2	Scotch Marine	9 3½	9 6	....	5,500 lb.	22 tons	Soft coal	24	21½	....	2	483	....	....	....	17	700	600	300	900	483	700	....
P.W.D. No. 5				2	Scotch Marine	12 0	....	....	8 tons	250 tons	Soft coal	26	25	2000	....	....	50	2	....	29	350	400	200	270	300	400	....
P.W.D. No. 12				1	Scotch Marine	9 11	12 0	....	3 tons	20 tons	Soft coal	15	15	1000	....	....	18	1	2000	14	300	....	....	....	....	....	....
P.W.D. No. 201	Simple	14″ x 60″	....	2	Scotch	7 0	9 0	....	2¼ tons	15 tons	Soft coal	10	12	200	....	....	12	4 6	....	8	....	1	....	....	....	....	....
P.W.D. No. 303	Compound	2-13½″ & 25″ x 15″	....	2	Cylindrical	12 0	10 8	....	40 bbls	340 bbls	Oil	16	24	....	6	800	....	....	....	27	1600	1400	500	....	800	1500	....
P.W.D. No. 305	Horizontal	16″ x 72″	....	2	Heine water tube.	[5] ..	18 9	....	40 bbls	300 bbls	Oil	20	20	4000	....	....	40	8	....	20	500	800	400	400	450	650	....

[1]Same engines for pumping and propelling. [2]And donkey boiler. [3]725 cu. yds. per day. [4]2 suction pipe. [5]8′ 3″ W. x 13′ 0″ H.

DEPARTMENTAL DIPPER DREDGES, 1914.

Name.	Official Registry Number.	Tonnage.	When Built.	Where Built.	Builder.	Cost Equipped.	Present Estimated Value.	Hull. Material.	Hull. Length O. A.	Hull. Beam O. A.	Hull. Working Draft.	Fuel Capacity.	Kind of Fuel.	Main Engines. Type.	Main Engines. Size.
						$	$		′ ″	′ ″	′ ″				
P.W.D. No. 6			1896	Levis, Que.	Carrier Laine Co.	42,925	50,000	Steel	91 0	36 0	5 6 F. 8 0 A.	25 tons	Soft coal	*Compound	11½″ & 24″x14″.
P.W.D. No. 9	130,346	368·37	1906	Toronto, Ont.	Bertram Engine Works.	49,350	55,000	Iron	90 0	36 0	6 0	31 tons	Soft coal	Simple	(2) 16″x14″.
P.W.D. No. 10	130,347	244·29	1871	Summerside, P.E.I.	John McKinnon	22,000	10,000	Wood	81 0	24 0	6 0	10 tons	Soft coal	Simple	16″x16″.
P.W.D. No. 11	130,348	192·12	1911	Pugwash, N.S.	Burns & Waters, Hull, Q.	24,000	30,000	Wood	64 7	24 9	4 2	10 tons	Soft coal	†Simple	(2) 8½″x12″.
P.W.D. No. 13			1914	Ottawa, Ont.	P. W. D.	89,900	89,900	Wood	95 0	34 0	7 0	60 tons	Soft coal	*Simple	(2) 12″x14″.
P.W.D. No. 4			1911	Ottawa, Ont.	P. W. D.	83,000	83,000	Wood	90 0	34 0	5 6	22 tons	Soft coal	Simple	(2) 10″x14″.
P.W.D. No. 101			1904	St. Louis de Gonzague, Q.	P. W. D.	14,360	15,000	Wood	54 0	20 0			Soft coal	Simple	8″x
P.W.D. No. 102		100	1906	Buckingham, Que.	P. W. D.	21,600	18,000	Wood	66 6	22 0	2 6	6½ tons	Soft coal	Simple	(2) 8″x12″.
P.W.D. No. 103			1909	Ottawa, Ont.	P. W. D.	23,000	20,000	Wood	61 0	24 0	2 6	6 tons	Soft coal	Simple	(2) 8″x12″.
P.W.D. No. 105	117,173	136·15	1902	Bay City, Mich.	Robt. Gordon Stewart.	20,000	8,000	Wood	76 0	24 0	9 0	20 tons	Soft coal	Simple	(2) 12″x16″.
P.W.D. No. 108				Deschenes, Que.	Mr. Askwith	6,500	4,500	Wood	51 0	20 0	2 0	5 tons	Soft coal	Simple	7″x14″.
P.W.D. No. 109	131,123	766·2	1906	Duluth, Wis.	Superior Dredge Co.	125,000	120,000	Wood	133 4	44 0	9 0	100 tons	Soft coal	Simple	(2) 18″x24″.
P.W.D. No. 110	131,128	458·28	1896	Kingston, Ont.	Michael Connelly			Steel	109 0	42 0	8 0	35 tons	Soft coal	*Compound	12″ & 24″x14″.
P.W.D. No. 111		148·3	1905	Roberval, Que.	Johnny Poitras	7,600		Wood	75 0	25 0	6 0		Wood or coal	Simple	(2) 9″x10″.
P.W.D. No. 112			1905	Sturgeon Falls, Ont.	P. W. D.	21,642	25,000	Wood	75 4	28 6	11 0	20 tons	Soft coal	Simple	12½″x15″.
P.W.D. No. 113			1889	Ottawa, Ont.	P. W. D.	25,000	5,000	Wood	75 0	29 0	10 0	12 tons	Soft coal	Simple	13″x15″.
P.W.D. No. 114	133,941	G138·38 R162·96	1900	Ottawa, Ont.	P. W. D.	24,500	18,000	Wood	83 0	28 5	8 6	11 tons	Soft coal	Simple	(2) 14″x16″.
P.W.D. No. 115		250	1906	Ottawa, Ont.	P. W. D.	81,844	75,000	Wood	95 0	37 0	13 0	27 tons	Soft coal	*Simple	(2) 14″x16″.
P.W.D. No. 116	131,129	375·28	1902	Sorel, Que.	P. W. D.	75,000	75,000	Wood	92 0	35 0	11 0	35 tons	Soft coal	*Simple	(2) 14″x16″.
P.W.D. No. 117	112,186	570·49	1908	Toronto, Ont.	Polson Iron Works.	91,700	100,000	Steel & wood.	106 9	38 0	8 0	75 tons	Soft coal	Simple	(2) 16″x18″.
P.W.D. No. 118		100	1903	Temiskaming Station, Que.	P. W. D.	19,600	10,000	Wood	67 0	25 6	5 0	5 tons	Soft coal	Simple	(2) 8″x10″.
P.W.D. No. 119			1903	Ottawa, Ont.	P. W. D.	23,250	20,000	Wood	70 0	22 0	4 6	14 tons	Soft coal	Simple	(2) 7″x14″.
P.W.D. No. 120	133,938	50·87	1899	Ottawa, Ont.	P. W. D.	25,000	20,000	Wood	87 0	33 9	8 6	18 tons	Soft coal	Simple	14″x16″.
P.W.D. No. 121			1907	Ottawa, Ont.	P. W. D.	21,020	18,000	Wood	61 0	24 0	2 6	6 tons	Soft coal	Simple	(2) 8½″x12″.
P.W.D. No. 122			1898	Grandes Piles, Que.	P. W. D.	7,500	10,000	Wood	70 0	20 9	2 6	5 tons	Soft coal	Simple	(2) 9″x9″.
P.W.D. No. 123	133,934	403·73	1913	Ottawa, Ont.	P. W. D.	80,238	80,238	Wood	95 0	34 0	7 0	60 tons	Soft coal	Simple	(2) 12″x11″.
P.W.D. No. 204			1911	Selkirk, Man.	P. W. D.	15,088	10,000	Wood	82 0	34 0	4 6	20 tons	Soft coal	Simple	(2) 8″x12″.
P.W.D. No. 205			1910	Selkirk, Man.	P. W. D.	42,797	20,000	Wood	77 0	38 0	7 0	20 tons	Soft coal	Simple	(2) 10″x14″.
P.W.D. No. 301	130,896	538·16	1908	New Westminster, B.C.	Polson Iron Works.	131,216	115,000	Steel	108 0	41 0	7 0	350 bbls.	Oil	Simple	(2) 14″x16″.
P.W.D. No. 307		138·67	1888	Victoria, B.C.	W. Turpel & Son.	24,000	15,000	Wood and iron	92 0	31 0	4 0	40 tons	Soft coal	*Simple	(2) 13″x13″.

*Surface condensing. †Iron strapped.

Name.	Boilers.							Spuds.		Working Depth.		Dippers.		Dipper Arm.		Length of Boom.	Main Hoist Line.			No. of crow one shift.	Province where employed.
	Number	Type.	Dia.	Length.	Press. Allowed	Horse-Power.	Fuel consumpt'n per d. of 10 h	Number	Size.	Material.	Max.	Min.	Number	Size.	Size.	Material.		Size.	Material.	Length.		
			′ ″	′ ″	Lb.						′ ″	′ ″		C. yd.			′ ″	″		′		
P.W.D. No. 6..	1	Scotch.....	9 0	10 0	120	47	1½ tons..	3	(2) 36″x36′x50′ (1) 24″x24″x60′	Fir.....	33 0	8 0	2	(1) 5 (1) 3½	(1) 23″x23″x50′.. (1) 23″x23″x40′..	..... aOak.....	48 0	1½	Wire rope.	325	14	Mar. Prov.
P.W.D. No. 9..	1	Scotch.....	9 0	10 0	145	52½	2 tons...	3	24″x24′x50′.....	†Fir.....	26 0	8 0	2	2½	16″x16″x46′.....	*Oak.....	41 0	1½	Wire rope.	250	12	Mar. Prov.
P.W.D. No. 10..	1	Locomotive	5 6	13 0	50	26	1 ton....	3	14″x16″x45′.....	bFir.....	21 0	9 0	2	1¾	13½″x15″x38′ 3″...	Oak.....	31 0	1⅛	Chain.....	240	11	Mar. Prov.
P.W.D. No. 11..	1	Scotch.....	6 3	8 0	140	30	1 ton....	3	14″x14″x38′.....	Oak.....	17 0	5 0	1	1	9″x9″.....	*Oak.....	30 0	⅞	Chain.....	210	9	Mar. Prov.
P.W.D. No. 13..	1	Scotch.....	9 0	10 0	140	....	2 tons...	3	30″x30″x	Fir.....	22 0	8 0	2	(1) 3½ (1) 2½	15½″x17″x	Oak & steel	39 0	1⅝	Wire rope.	350	10	Mar. Prov.
P.W.D. No. 4..	1	Scotch.....	9 0	10 0	140	53	2½ tons..	3	(2) 24″x24″x52′ (1) 18″x20″x52′	†Fir.....	22 0	8 0	1	2½	10″x17″x46′.....	*Oak.....	44 0	1¼	Wire rope.	175	12	Ont. & Que.
P.W.D. No. 101	1	Locomotive	3 6	10 6	100	35	1½ tons..	3	12″x12″x18′.....	Pine.....	8 0	6 0	2	¾	.....	Oak.....	22 0	⅝	Chain.....	140	6	Ont. & Que.
P.W.D. No. 102	1	Locomotive	4 4	15 0	118	37	1½ tons..	3	12″x12″.....	Oak.....	16 0	3 0	1	1	8½″x10″x26′.....	cOak.....	29 3	⅝	Chain.....	200	8	Ont. & Que.
P.W.D. No. 103	1	Locomotive	4 4	15 0	125	37	1½ tons..	3	12″x12″.....	Oak.....	16 0	6 0	1	1	8½″x10″x26′.....	.....	30 0	⅝	Chain.....	200	8	Ont. & Que.
P.W.D. No. 105	1	Fitzgibbon*d*	6 0	10 8	85	20	1½ tons..	3	(2) 18″x18″x42′ (1) 14½″x15½″x42′	Oak.....	20 0	9 0	1	2½	15½″x20½″x36′....	Oak & steel	35 6	1¼	Wire rope.	250	7	Ont. & Que.
P.W.D. No. 108	1	Scotch.....	4 3	8 0	85	....	1½ tons..	3	12″x12″x33′.....	Oak.....	15 0	6 0	1	1	12″x12″x32′.....	Oak.....	26 0	1	Wire rope.	152½	5	Ont. & Que.
P.W.D. No. 109	1	Scotch.....	10 6	12 6	135	....	4 tons...	3	(2) 40″x40″x55′ (1) 30″x30″x60′	Fir.....	27 0	13 6	2	(1) 10 (1) 4	26¼″x31½″x55′...	eSteel.....	54 0	2½	Wire rope.	225	18	Ont. & Que.
P.W.D. No. 110	1	Scotch.....	10 0	10 6	120	120	1½ tons..	4	(2) 36″x36″x .. (2) 24″x24″x ..	Fir	55 0	15 6	2	5	(1) 20″x23″x84′ (1) 20″x21″x64′	fOak	41 3	1⅛	Wire rope.	400	15	Ont. & Que.
P.W.D. No. 111	1	Locomotive	4 0	17 0	100	50	1½ cords	3	(2) 14″x14″x .. (1) 10″x10″x ..	Oak.....	18 0	6 0	1	1	13″x13½″x	Oak.....	40 0	1	Chain.....	200	8	Ont. & Que.
P.W.D. No. 112	1	Fitzgibbon*h*	4 7	8 7	110	48	1½ tons..	2	20″x20′x42′.....	Oak.....	19 0	11 0	1	2¼	13½″x14½″x	gOak.....	36 0	1¼	Chain.....	172	11	Ont. & Que.
P.W.D. No. 113	1	Locomotive	4 6	12 3	80	....	2 tons...	3	(2) 16″x16″x39′ (1) 13″x14″x42′	Oak.....	20 0	10 0	1	2	15¼″x16½″x36′....	Oak & iron.	28 6	1⅛	Chain.....	187	11	Ont. & Que.
P.W.D. No. 114	1	Locomotive	4 2½	16 2½	100	....	1½ tons..	3	(2) 17″x18″x .. (1) 12″x13″x ..	Oak.....	22 6	10 0	2	(1) 2 (1) 1	16″x17½″x38′....	Oak & iron.	38 0	1⅛	Chain.....	195	8	Ont. & Que.
P.W.D. No. 115	1	Scotch.....	9 2	8 6	130	85	3 tons...	3	(2) 30″x30″x .. (1) 20″x21″x ..	Fir.....	35 0	13 0	2	(1) 5 (1) 3	18″x x55′.....	Fir.....	45 0	2	Wire rope.	225	13	Ont. & Que.
P.W.D. No. 116	1	Locomotive	6 0	19 0	75	80	2½ tons..	3	(2) 30″x30″x .. (1) 20″x24″x ..	Fir.....	30 0	14 0	1	5	19″x19″x49′ 4″...	jOak..	45 0	2⅛	Wire rope.	205	15	Ont. & Que.
P.W.D. No. 117	1	Scotch.....	10 4	10 10	145	....	3½ tons..	3	(2) 36″x36″x66′ (1) 24″x25″x66′	Steel plates.	45 0	16 0	2	(1) 8 (1) 5	24″x24″x66′....	Steel & wood.	50 0	2¾	Wire rope.	230	15	Ont. & Que.
P.W.D. No. 118	1	Locomotive	4 2	16 6	115	....	1 ton....	3	14″x14″x	Oak.....	19 0	8 0	1	1½	13″x13″x	Oak.....	34 0	1	Chain.....	175	12	Ont. & Que.
P.W.D. No. 119	1	Locomotive	4 6	8 0	135	40	1 ton....	3	13½″x13½″x35′....	Oak.....	15 0	8 0	1	1½	12″x13″x36′.....	Oak & steel	30 0	1	Wire rope.	150	8	Ont. & Que.
P.W.D. No. 120	1	Locomotive	4 2	15 5	95	....	1½ tons..	3	24″x24″x	Wood.....	20 0	9 0	1	3½	15½″x16″x28′.....	Wood & iron	29 6	1½	Chain.....	200	11	Ont. & Que.
P.W.D. No. 121	1	Locomotive	4 4	15 0	125	37	1½ tons..	3	12″x12″x	Oak.....	16 0	6 0	2	(1) 1 (1) ¾	8⅜″x10″x26′.....	Oak & steel	30 0	¼	Chain.....	200	8	Ont. & Que.
P.W.D. No. 122	1	Locomotive	4 0	15 6	100	....	1 ton....	3	14″x14″x	Oak.....	14 0	4 0	1	¾	.....	Oak & iron.	40 0	⅝	Chain.....	200	8	Ont. & Que.
P.W.D. No. 123	1	Scotch.....	8 6	9 6	140	30	2 tons...	3	30″x30″x	Fir.....	22 0	8 0	2	(1) 3½ (1) 2½	15½″x17″x	Oak & steel	39 0	1⅝	Wire rope.	350	10	Ont. & Que.
P.W.D. No. 204	1	Locomotive	4 0	16 0	130	....	1½ tons..	3	12″x12″x	Fir.....	15 0	4 6	1	1½	14″x16″x	Oak.....	40 0	1	Wire rope.	.....	8	Man., Sask. & Alta.
P.W.D. No. 205	1	Scotch.....	10 0	10 0	150	....	1½ tons..	3	24″x24″x	Fir.....	20 0	7 0	1	3	16″x18″x50′.....	Wood & st.	40 0	1½	Wire rope.	175	11	Man., Sask. & Alta.
P.W.D. No. 301	1	*k*Scotch.....	9 6	10 0	150	80	9 bbls..	3	(2) 36″x36″x68′ (1) 30″x30″x68′	*l*Fir.....	40 0	15 0	3	(2) 5 (1) 3	24″x26′.....	Steel & wood.	60 0	2½	Wire rope.	230	13	B. C.
P.W.D. No. 307	1	Dry Back..	7 0	9 6	125	70	2½ tons..	3	(2) 22″x23″x60′ (1) 10″x18″x60′	Wood & iron	30 0	12 0	1	3	18″x21″.....	Wood & iron	50 0	1⅛	Wire rope.	280	11	B. C

*Iron bound. †Iron strapped. *a*Faced with steel plates. *b*With iron plating. *c*With iron sheeting. *d*Boiler 8 ft. high. *e*With wood filler.
*f*Covered by steel plates *g*Ironed off. *h*Boiler 7′ 4″ high. *i*Wide, 6′ 1″ H. *j*Steel plate covering. *k*Also 1 Donkey boiler 3′x6′. *l*And Blue Gum wood

DEPARTMENTAL CLAM-SHELL AND ORANGE-PEEL DREDGES, 1914.

Name.	Official Registry Number.	Tonnage.	When Built.	Where Built.	Builder.	Cost equipped.	Present estimated value.	Hull. Material.	Hull. Length O.A.	Hull. Beam O.A.	Hull. Working Draft.	Fuel Capacity.	Kind of Fuel.	Main Engines. Number.	Main Engines. Type.	Main Engines. Size.	Boilers. Number.	Boilers. Type.	Boilers. Diameter	Boilers. Length.	Boilers. Pressure Allowed.	Boilers. Horse Power.	Boilers. Fuel consumption per day of 10 hrs.
						$	$		′ ″	′ ″	′ ″								′ ″	′ ″	Lb.		
P.W.D. No. 106	.....	89·42	1911	Sorel, Que.	P. W. D.	16,838	15,000	Wood	55 0	24 0	6 0	3 tons	Soft coal	2	Simple	9″x12″	1	Upright	4 6	7 0	105	45	1 ton.
P.W.D. No. 202	.....	.....	1911	Selkirk, Man.	P. W. D.	19,077	15,000	Wood	80 6	33 0	4 0	20 tons	Soft coal	2	Simple	9″x12″	1	Scotch	7 0	9 0	150	....	1 ton.
P.W.D. No. 203	.....	.....	1909	Fork River, Man.	P. W. D.	4,000	2,000	Wood	60 0	32 0	2 0	4 cords	Wood	1	Simple	8″x12″	1	Vertical	3 6	8 0	100	....	1 cord.
P.W.D. No. 206	.....	78·04	1907	Athabasca Landing, Alta.	P. W. D.	9,500	3,500	Wood	62 5	25 2	3 6	.....	Wood	2	Simple	7″x10″	1	Upright	3 2½	....	150	20	[1]1½ cords.
.....	.....	.....	[2]1904	Winnipegosis, Man	P. W. D.	.....	2,000	Wood	60 0	20 0	3 0	2 cords	Wood	1	Simple	8″x12″	1	Vertical	3 6	8 0	100	....	¾ cord.
P.W.D. No. 209	.....	.....	.....	.....	.....	.....	.....	Wood	40 0	20 0	.....	.....	.....	1	Simple	[4]7″x10″	1	Upright	.....	.....	.....	.....	.....
P.W.D. No. 302	.....	.....	1911	Nelson, B.C.	Thos. Cunningham.	12,000	12,000	Wood	68 7	31 3	22 0	40 tons	Soft coal	2	Simple	8¼″x10″	1	Vertical	3 6	7 8	135	23	3¾ ton.
*P.W.D. No. 304	.....	39	1908	Penticton, B.C.	P. W. D.	5,285	5,285	Wood	52 8	18 3	1 6	10 cords	Wood	2	Simple	6″x10″	1	Vertical	3 0	7 1	115	14	⅜ cord.
P.W.D. No. 309	.....	64	1907	Kamloops, B.C.	P. W. D.	7,500	6,750	Wood	57 0	24 0	1 6	10 cords	Wood	2	Simple	6½″x10″	1	Vertical	3 0	7 7	115	16	½ cord.
P.W.D. No. 313	134,075	208·31	1913	North Vancouver, B.C.	Wallace Shipyards, Ltd.	18,000	17,100	Wood	84 0	35 0	2 6	12 tons	Soft coal	2	Simple	10″x12″	1	Vertical	3 6	8 0	130	30	¾ ton.
.....	.....	.....	1912	Nakusp, B.C.	S. Mills	18,000	18,000	Wood	71 6	34 6	2 6	10 tons	Soft coal	2	Simple	10″x12″	1	Vertical	4 6	8 6	130	30	1 ton.

*Combined dredge and pile driver. Size Leads 6″x8″x40′. Weight Hammer 2,000 lbs. Distance between leads 16′.
[1]2 ft. long. [2]Rebuilt 1910. [4]Double cylinder.

Name.	Spuds.			Boom.			Buckets.				Working Depth.		Can overcast from side of dredge.	Size Hoist Cable.	Size Trip Cable.	Number of Crew.	Average Capacity.	Cubic Yards per Hour.						Province where employed.
	Number.	Size.	Material.	Length.	Size.	Material.	Number.	Kind.	Size.	Make.	Max.	Min.						Clay.	Sand.	Silt.	Gravel.	Sand and Gravel.	Sand and Silt.	
									Cu.yd		′	′ ″	′ ″	″	″		Cu. yd.							
P.W.D. No. 106	4	14″x14″	Fir	48	24″x24″	Steel	2	Clam shell	1		16	6 0	....	1	1	8	300	50	....	....	....	....	....	Ont. & Que.
P.W.D. No. 202	3	16″x16″	Fir	52	24″x24″	Steel	1	Orange Peel	1½	Hayward	15	4 0	20 0	1	1	8	600	..	....	....	....	....	....	Man., Sask., Alta.
P.W.D. No. 203	3	12″x12″	Fir	50	12″x12″	Fir	1	Orange Peel	1½	Hayward	15	2 6	20 0	1	1	8	250	..	....	....	....	....	....	Man., Sask., Alta.
P.W.D. No. 206	3	10″x10″	Spruce	40	14″x10″	Tamarack	1	Orange Peel	¾	Hayward	8	Nil.	12 0	1	1	6	....	35	34	30	[1]10	10to15	35	Man., Sask., Alta.
....	3	12″x12″	Fir	35	10″x10″	Fir	1	Orange Peel	1½	Hayward	12	4 0	15 0	1	1	8	300	..	....	....	....	....	....	Man., Sask., Alta.
P.W.D. No. 209	..	10″x10″x20′	Fir	32	10″x10″	Fir	1	Clam shell	¾	Hayward	....	....	....	....	....	....	....	....	....	....	....	....	....	Man., Sask., Alta.
P.W.D. No. 302	3	13½″x13½″x40′	Wood	[2]40	14″x14″	Wood	2	Orange Peel	1	Hayward	20	2 2	25 0	1	1	8	405	20	40	45	25	35	45	B. C.
P.W.D. No. 304	2	12″x12″x30′	Fir	38	12″x12″	Fir	2	Orange Peel	(1) ½ (1) ½	American Hoist & Derrick Co.	10	2 0	26 0	1	1	6	170	15	20	20	20	20	20	B. C.
P.W.D. No. 309	2	12″x12″x30′	Fir	48	11½″x13½″	Fir	1	Orange Peel	¾	American Hoist & Derrick Co.	12	2 0	33 0	1	1	6	235	20	27	27	27	27	27	B. C.
P.W.D. No. 313	2	12″x12″x60′	Fir	48	18″x18″	Fir	1	Orange Peel	1½	Hayward	50	2 6	28 0	1	1	5	235	20	30	30	20	20	30	B. C.
....	3	14″x14″x36′	Wood	[4]60	14″x14″	Wood	2	(1) Orange Peel (1) Clam shell	2	Hayward	14	3 0	33 6	1	1	9	585	40	90	90	60	70	90	B. C.

[1]Hard. [2]And 60′. [4]And 40′.

DEPARTMENTAL SNAGBOATS, 1914.

Name.	Official Registry Number.	Tonnage.	When Built.	Where Built.	Builder.	Cost Equipped.	Present Estimated Value.	Hull. Material.	Hull. Length, B. P.	Hull. Beam.	Hull. Working Draft.	Fuel Capacity.	Kind of Fuel.	Average fuel consumption per day of 10 hrs.	Boilers. Number.	Boilers. Type.	Boilers. Diameter.	Boilers. Length.	Boilers. Horse Power.	Hoisting Engines. Size.	Hoisting Engines. Type.	Hoisting Engines. Maker.	Propelling Engines. Number.	Propelling Engines. Size.	Propelling Engines. Type.	Propelling Engines. N. H. P.	Propelling Engines. Diameter of wheel.	Buckets. Length.	Buckets. Width.	Revolutions per minute.	Speed per hour.	Length of Boom.	Height of Frame.	Number of ...
						$	$		'	'	' "			Lb.			"	"									'	'	"	M		'	
Muskrat			1892	Golden, B.C.		7,500	3,500	Wood	84	20	1 4	10 tons	Soft coal	1,200	1	Vertical	15	44	..	8"x12"	Simple		[1]			15	15	15	10	20	5		22	7

[1]Hoisting engines used.

DEPARTMENTAL DRILL SCOWS, 1914.

Number.	When Built.	Where Built.	Builder.	Cost Equipped.	Present Estimated Value.	Hull. Material.	Hull. Length.	Hull. Beam.	Hull. Depth.	Hull. Draft.	Spuds. Number.	Spuds. Size.	Spuds. Material.	Compressor. Size.	Compressor. Type.	Gas Engine. Type.	Gas Engine. Horse Power.	Fuel.	Remarks.
				$	$		' "	'	'	' "									
2	....	.....	.....	3,096	.....	.....	36 6	27	7	2 6	2	12"x12"x60'	Fir	10"x12"..	Canadian Ingersol Rand.	Hor. Foos Engine Co.	40	No. 1 Distillate or Coal Oil.	House & Mach'y installed by Victoria Mach'y. Depot in 1913.
[1]	1911 & 12	Victoria, B.C.	Alex. Watson.	[2]3,350	3,000	Wood & iron.	32 0	20	.....	.....	..	12"x12"x45'	Fir	.....	.....	.....	.....	.....	[1]Two scows. [2]For 2 scows.

DEPARTMENTAL LOBNITZ ROCK BREAKERS, 1914.

Name.	Official Registry Number.	Tonnage.	When Built.	Where Built.	Builder.	Cost equipped.	Present estimated Value.	Hull. Material.	Hull. Length O. A.	Hull. Beam O. A.	Hull. Working Draft.	Fuel. Capacity.	Fuel. Kind.	Fuel. Average consumption per day, 10 hrs.	Boiler. Number.	Boiler. Type.	Boiler. Diameter.	Boiler. Length.	Boiler. Horse Power.
						$	$		'	"	'						"	"	
P.W.D. Lobnitz No. 1	130,895	222	1911	Renfrew, Scotland	Lobnitz & Co.	70,000	60,000	Steel.	100	36	0 5	210 bbls.	Crude oil	17 bbls.	1	Scotch.	9 0	8 6	
P.W.D. Lobnitz No. 2			1914	Renfrew, Scotland	Lobnitz & Co.	61,300	61,300	Steel.	100	36	0 5	30 tons	Coal	2 tons.	1	Scotch.	8 8	8 8	
P.W.D. Lobnitz No. 3	133,760	(G438-39) (R388-79)	1912	Renfrew, Scotland	Lobnitz & Co	62,630	54,500	Steel.	100	36	2 5	65 tons	Soft coal.	2 tons	1	Scotch.	9 0	6 8	

Name.	Engine. Size.	Engine. Type.	Auxiliaries. Spuds. Number.	Auxiliaries. Spuds. Size.	Auxiliaries. Manœuvering. Number.	Auxiliaries. Manœuvering. Size.	Condenser. Size	Condenser. Type.	Condenser. Number.	Anchor Spuds. Size.	Anchor Spuds. Material.	Working Depth. Maximum.	Working Depth. Minimum.	Breaker. Weight.	Breaker. Position on Hull.	Breaker. Minimum Drop.	Breaker. Maximum Drop.	Number of Crew.	Where employed	Erected by.
												'	'			'	'			
P.W.D. Lobnitz No. 1	2-12"x15"	Simple	3	6"x5"	2	7"x12"		Wheeler Surface	3	2'x2'x60'	Fir	40	8	45,000 lb.	Bow	6	12	11	B. C.	Victoria Mach'y. Depot.
P.W.D. Lobnitz No. 2	12"x15"	Simple	3	6"x6"	2	7"x12"		Wheeler Surface	3	2'x2'x60'	Fir	42	12	45,000 lb.	Bow	6	10	8	B. C.	Morgan & Co., Vancouver.
P.W.D. Lobnitz No. 3	12"x14"	Simple			2	7"x12"	2'2"x4'5"	Surface				40	10	21 tons	Centre	1	15	9	Mar. Prov	

DEPARTMENTAL STONELIFTERS, 1914.

Name.	Official Registry Number.	Tonnage.	When Built.	Where Built.	Builder.	Cost equipped.	Present estimated Value.	Hull. Material.	Hull. Length O. A.	Hull. Beam.	Hull. Working Draft.	Fuel. Capacity.	Fuel. Kind.	Fuel. Average consumption per day of 10 hrs.	Boiler. Number.	Boiler. Type.	Boiler. Diameter.	Boiler. Length.
						$	$		′	″	′						″	′
P.W.D. Stonelifter No. 1	.....	.....	.....	.....	.....	41,770	.....	Steel	112	34 0	5	20 tons	Soft coal	2 tons	1	Scotch	7 6	....
P.W.D. Stonelifter No. 101	.....	.....	1901	Grandes Piles	P. W. D.	1,200	2,500	Wood	41	23 10	*a* 2	.....	.....	.....	.....	.....	.....	.....
P.W.D. Stonelifter No. 102	.....	.....	.....	Ottawa, Ont.	P. W. D.	3,000	1,000	Wood	40	24 0	2	3 tons	Soft coal	½ ton	1	Upright	2 10½	6

Name.	Hoisting Engines. Size.	Type.	Make.	Horse Power.	Condenser. Size.	Type.	Maximum Capacity.	Working Depth. Maximum.	Minimum.	Anchors. Number.	Type.	Size of Hoisting Cable.	Material of Overhead Frame.	Max. Width of Grips.	Where Employed.	Number of Crew.	Remarks.
								′	′			″		″			
P.W.D. Stonelifter No. 1	(2) 9″x10″	Simple	.....	.....	.....	.....	50 tons	.....	.....	6	Fluke	1⅛	Steel	14 6	Mar. Prov.	10	
P.W.D. Stonelifter No. 101	*b*	.....	.....	.....	.....	.....	40 tons	7	2	4	Hand Crane	⅝	Pitch Pine	5 6	Ont. and Que.	15	*a* 3′6″ leaded. *b* Hand Winch
P.W.D. Stonelifter No. 102	*a*	Simple	Beatty	.....	.....	.....	6 tons	14	2	4	Hand Ratchet	¾ & ⅞	Fir and Oak	9 0	Ont. and Que	2	*a* Double engines.

DEPARTMENTAL FLOATING PILE DRIVERS, 1914.

Name.	Official Registry Number.	Tonnage.	When Built.	Where Built.	Builder.	Cost equipped.	Present estimated Value.	Hull.					Fuel.		
								Material.	Length.	Beam.	Depth.	Working Draft.	Capacity.	Kind.	Average consumption per day of 10 hrs.
						$	$		'	' "	' "	"			
.....	.....	.....	1908	Selkirk, Man.....	P. W. D.....	2,000	1,000	Wood.....	60	22 0	3 6	12	2 tons.....	Coal....	.....
Kuspidor.....	.....	23	1912	Chase, B.C.....	P. W. D.....	2,250	2,025	Wood.....	46	16 0	3 0	12	.....	Wood...	½ cord....
No. 1.....	.....	50	.....	Golden, B.C.....	.....	.....	1,000	Wood.....	50	18 0	3 6	18	5 cords....	Wood...	½ cord....
No. 3.....	.....	50	1911	Nakusp, B.C.....	S. Mills.....	2,600	2,500	Wood.....	50	18 3	4 6	20	6 cords....	Wood...	½ cord....
No. 6.....	.....	80	1913	Nelson, B.C.....	George Hale....	2,400	2,400	Wood.....	60	20 0	4 0	*a* 40	10 cords..	Wood...	½ cord....

Name.	Boiler.			Hoisting Engine.			Leads.		Weight of Hammer.	Weight of Cap.	Distance between Leads.	Number of Crew.	Where employed.	Remarks.
	Type.	Diameter	Length.	Size.	Type.	Maker.	Height.	Size.						
		' "	' "				'		Lb.	Lb.	=			
.....	*a*	.....	.....	.....	.....	.....	32	6"x8".....	2,000	400	16	4	Man., Sask., Alta.	*a* Boilers and Engine 6"x10" American Hoist.
Kuspidor.....	Vertical	2 0	6 1	5½"x8".....	Simple.	American Hoist & Derrick Co.	40	6"x12".....	2,000	.....	16	6	B. C.....	
No. 1.....	*a*	.....	.....	.....	.....	.....	40	6"x8".....	1,800	.....	20	7	B. C.....	*a* Driven from Scow boat Muskrat.
No. 3.....	Vertical	3 0	7 0	(2) 6½"x10"	Simple.	American Hoist & Derrick Co.	60	6"x8" Top / 6"x10" Bot	2,200	.....	16	6	B. C.....	
No. 6.....	Vertical	2 6	7 0	(2) 6"x10".	Simple.	J. S. Mundy *b*.....	50	6"x12"x50'.	2,200	.....	18	4 to 8	B. C.....	*a* 10' light. *b* Newark, N.J., U.S.A.

DEPARTMENTAL DERRICK SCOWS, 1914.

Number.	When Built.	Where Built.	Builder.	Cost equipped.	Present estimated Value.	Hull. Material.	Hull. Thickness of Sides.	Hull. Thickness of Bottom.	Hull. Thickness of Deck.	Hull. Length.	Hull. Beam.	Hull. Depth.	Hull. Draft, Light.	Hull. Draft, Loaded.	Engines. Number.	Engines. Size.	Engines. Type.	Boiler. Type.	Boiler. Diameter.	Boiler. Length.	Boiler. Working Pressure.	Coal consumption per day, 10 hrs.	Used in connection with.	Remarks.
				$	$		"	"	"	'	'	' "	' "	'					' "	'	Lb.				
a	1911	Vancouver, B.C.	Vancouver Shipyards, Ltd.	715	375	Wood	4	2½	2	32	0	11	2	8	0	6	2							P.W.D. No. 306.	a Used as water scow.
a	1911	Victoria, B.C.	Alex. Watson.	720	375	Wood	4	2½	2	32	0	12	2	6	0	11	2							P.W.D. Lobnitz No. 1.	a Used for taking up anchors and furnishing water.
a	1914	Vancouver, B.C.	W. Menchions.	700	700	Wood	4	2½	2	32	4	12	2	6	0	10	2							P.W.D. Lobnitz No. 2.	a Used for taking up anchors and furnishing water.
	1911	North Vancouver, B.C.	Wallace Shipyards, Ltd.	6,400	6,000	Wood	6	4	3	70	0	26	8	8	3	0	6	1	(2) 8"x8"	Simple.	Vertical	3	6	8	100	½ ton.	P.W.D. No. 306	

DEPARTMENTAL INSPECTION BOATS, 1914

Name.	Official Registry Number.	Registered Tonnage.	When Built.	Where Built.	Builder.	Cost Equipped.	Present Estimated Value.	Hull. Material.	Hull. Length O. A.	Hull. Beam Amidship	Hull. Depth.	Hull. Working Draft.	Average Speed.	Engines. Number.	Engines. Size	Engines. Type.	Engines. Make.	Engines. I. H. P.
						$	$		'	' "	'	' "						
*Victoria	.....	.....	1905	Selkirk, Man.	P. W. D.	.....	6,000	Wood	60	14 6	9	7 0	8 M.p.h.	1	8" & 16"x12"	[1]Compound.	Doty	.....
Athel	.....	.....	1910	Vancouver, B.C.	Vancouver Shipyard, Ltd.	4,540	4,086	Wood	44	9 6	4	1 8	10 M.p.h.	1	.....	[1]Gasoline	Buffalo	30
Marion	.....	.....	1913	Nelson, B.C.	George W. Hale	3,350	3,300	Wood	35	7 0	5	2 6	12 M.p.h.	1	4¾"x5½"	[1]Gasoline	Niagara	25

Name.	Boilers. Number.	Boilers. Type.	Boilers. Diameter.	Boilers. Length.	Boilers. Horse Power.	Propellers. Number.	Propellers. Size.	Fuel. Capacity.	Fuel. Kind.	Fuel. Average consumption per day, 10 hr.	Number in Crew.	Sleeping accommodation for.	Size of Life Boat.	Number of Life Belts	Where Used.	Remarks.
			' "	'												
*Victoria	1	Fitzgibbon	[2]4 6	8	....	1	4' 6"....	7 tons.....	Coal.....	1 ton.....	4	9	14'x4'6"...	12	Man., Sask., Alta.	[1] Condensing. [2] 7'6" H. * Also used as Tug.
Athel	....	.....	.....	.....	.....	1	2'.....	100 gals...	Gasoline..	20 gals....	1	4	[2]16'.....	4	B. C.	[1] Four cycle. [2] Dinghy.
Marion	....	.....	.....	.....	.....	1	22".....	50 gals....	Gasoline..	25 gals...	1	4	18'.....	2	B. C.	[1] Medium Duty.

Name.	Official Registry Number.	Tonnage.	When Built.	Where Built.	Builder.	Cost Equipped.	Present Estimated Value.	Hull. Material.	Hull. Length between Perpendicular	Hull. Beam Amidship	Hull. Working Draft.	Fuel Capacity.	Kind of Fuel.	Average fuel consumption per day of 10 hours.
						$	$		′ ″	′ ″	′ ″			
Helena	133,758	95·83	1907	Collingwood, Ont.	Collingwood Shipbuilding Co	52,500	.....	Steel	111 0	23 0	11 3	90 tons	Soft coal	3½ tons
Lisgar	126,493	118	1908	Sorel, Que.	Pontbriand Co., Ltd	47,500	45,000	Steel	95 0	22 0	11 0	50 tons	Soft coal	1½ tons
Canso	126,803	G.225·06, R.47·24	1910	Yarmouth, N.S.	New-Burrell-Johnson Iron Co., Ltd	46,500	45,000	Steel	91 0	22 0	10 6	50 tons	Soft coal	3½ tons
Fredericton	131,137	G.109·21, R.46·76	1913	Toronto, Ont.	Polson Iron Works	31,930	.....	Steel	82 0	20 0	9 0	20 tons	Soft coal	2 tons
Sogenada	126,766	G.64·33, R.5·83	1909	Rutherglen	William Chalmers & Co	20,000	.....	Steel	73 5	15 6	10 0	14 tons	Soft coal	2 tons
Mabel Reid	122,597	G.62·82, R.17·06	1887	Freeport, Me.		7,000	7,000	Wood	63 0	15 9	8 0	7 tons	Soft coal	2 tons
Rona	112,348	G.70·05, R.42·47	1903	Liverpool, N.S.	Robie S. McLeod	8,000	6,500	Wood	80 6	20 0	8 0	6 tons	Soft coal	2 tons
Eileen			1907	Buckingham, Que.	W. H. Kelly	6,800	5,600	Wood	40 0	13 6	5 8	4 tons	Soft coal	1 ton
Alva	111,447	22	1901	Ottawa, Ont.	Capt. Henry Shaver	5,500	4,500	Wood	50 0	13 2	5 11	5 tons	Soft coal	1 ton
Sir John	133,939	40·72		Sorel	P. W. D	10,000	9,000	Wood	81 2	[1]18 10	8 0	16 tons	Soft coal	1 ton
Mina G			1910	Buckingham, Que.	W. H. Kelly	7,865	.....	Wood	45 0	13 6	6 0	4 tons	Soft coal	1 ton
Aylmer			1910	Toronto, Ont.	Polson Iron Works	8,475	8,000	St. and wood	.....	11 6	4 4	5 tons	Soft coal	1 ton
Hercules	122,217	96·75	1906	Toronto, Ont.	Polson Iron Works	70,000	65,000	Steel	97 0	23 0	10 6	60 tons	Soft coal	3½ tons
Archie Stewart								Wood	85 0	18 0	8 4	18 tons	Soft coal	5 tons
Marie Louise		12·01	1899	Roberval, Que.	Beauchemin & Fils		650	Wood	50 0	15 0	4 6		Wood, coal	1½ cords
Maggie K	131,132	G.24·73, R.12·55	1912	Buckingham, Que.	[2]See remarks.	7,000	3,500	Wood	46 0	13 0	6 0		Soft coal	
Cliffside	126,405	22	1909	Ottawa, Ont.	J. Holl	9,000	7,000	Wood	70 9	16 8	6 4	15 tons	Soft coal	4 tons
St. Paul							4,000	Wood	52 0	16 0	9 6	14 tons	Soft coal	1½ tons
Monitor	107,891	G.61·59, N.39·13	1898	Montreal, Que.	J. & R. Weir	12,500	11,250	Steel	60 6	16 0	8 6	16 tons	Soft coal	2½ tons
Storm King		73				22,000	19,800	Wood	92 0	19 0	12 0	28 tons	Soft coal	2½ tons
Peel	126,683	116·73	1909	Sorel, Que.	Pontbriand Co	47,500	40,000	Steel	91 0	22 0	9 6	45 tons	Soft coal	2½ tons
Dora			1889	Opemican, Que.	Alex. Miller	3,000	3,000	Wood	56 0	11 6	6 6	6 tons	Soft coal	1 ton
Ottawa							4,000	Wood	[3]	[4]	6 10	6 tons	Soft coal	1 ton
Trudeau	133,940	G.31·04, R.55·11	1897	Sorel, Que.	P. W. D		8,000	Wood	80 0	18 6	7 10	12 tons	Soft coal	2 tons
Annette				Sorel, Que.	Beauchemin & Cie		3,000	St. and wood	59 0	12 0	3 6	6 tons	Soft coal	2½ tons
Fashion		G.43·10, N.26·58	1893			8,000	7,200	Wood	52 0	16 0	7 6	8 tons	Soft coal	2½ tons
Blanche	71,269	G.28, R.19	1872	Deseronto, Ont.			3,000	Wood	50 0	9 6	4 0	4 tons	Soft coal	2½ tons
Daisy	100,465	G.15, R.10 [3]	1893	Quebec, Que.			7,500	Wood	52 0	11 0	5 0	4 tons	Soft coal	2½ tons
Delisle	61,134	G 46, R.17 [6]	1869	Buffalo, N.Y.			12,000	Wood	62 4	14 8	7 4	7 tons	Soft coal	4 tons
Lion							800	Wood	35 0	8 0	3 0	½ ton	Soft coal	½ ton
J. G. Witherbee	122,251	G.165, R.82	1872	Philadelphia, Pa.			18,000	Iron	111 2	22 0	11 0	15 tons	Soft coal	4 tons
Lisgar			1910	Selkirk, Man.	P. W. D	2,772	2,000	Wood	44 0	13 6	5 0	7 tons	Soft coal	½ ton
Peguis			1912	Selkirk, Man.	P. W. D	9,066	8,000	Wood	58 0	15 0	6 0	8 tons	Soft coal	1½ tons
Friday			1911	Selkirk, Man.	P. W. D	8,250	7,000	Wood	58 0	15 0	6 0	8 tons	Soft coal	1½ tons
Carberry						10,000	9,000	Wood	69 8	16 5	5 0	2 cords	Wood	2 cords
Point Ellice	130,897	G.162·67, R.69·40	1911	North Vancouver, B.C.	McDougall Jenkins	48,700	44,000	Steel	91 6	20 0	11 6	98 brls	Crude oil	10 brls
Point Garry			1911	Vancouver, B.C.	Vancouver Shipyard	9,315	8,000	Wood	45 0	10 6	6 6	380 gnls	No. 1 distillate	50 gals
Point Grey	130,917	162·16	1912	North Vancouver, B.C.	Wallace Shipyards Ltd	69,800	63,000	Steel	93 4	22 3	{F. 11′ A.14·5′}	315 brls	Oil	10 brls
Point Hope	130,310	44·93 N.	1910	Vancouver, B.C.		17,000	14,500	Wood	65 0	16 0	9 6	20 tons	Soft coal	1½ tons
Petrel		G.134, N.58	1906	Victoria, B.C.	Victoria Mach'y Depot	35,000	24,000	Steel	86 4	17 0	12 3	50 tons	Soft coal	3½ tons

[1] Over all. [2] Estella Ann Kearney, wife of W. H. Kelly. [3] 57′ O. A. [4] 13′ 6″ O. A. [5] Rebuilt 1914 at Ottawa, Ont. [6] Rebuilt 1914 at Ottawa, Ont.

Name.	Engines. Number.	Type.	Size.	I. H. P.	Make.	Boilers. Number.	Type.	Diameter.	Length.	H. Power.	Condenser. Size.	Type.	Size Towing Propeller.	Number of Crew.	In attendance on.
Helena	1	Triple expansion	14½", 35"& 40"x25"	[1]470		1	Scotch	13 6	11 0	..	[28]3"x3'4"x1'11"	Surface	9'6" D. x 11' P.	11	P.W.D. No. 1.
Lisgar	1	Triple expansion	12", 19" & 30"x20"	400		1	Scotch	9 6	10 0	..	39'x3'x2'	Surface		12	P.W.D. No. 6.
Canso	1	Triple expansion	12", 19" & 30"x20"	[4]300	New-Burrell-Johnson I. Co.	1	Scotch	10 10	9 3	..	[5]674 sq. ft.	Surface	7'6"	11	P.W.D. No. 2.
Fredericton	1	Compound	12" & 26"x18"	...	Polson Iron Works	1	Scotch	10 0	11 0	..	65'x2'6"x3'	Surface		8	P.W.D. No. 3.
Sogenada	1	Compound	14" & 30"x21"	200	James Ritchie Patrick	1	Scotch	9 0	9 0	..	6'x4'x2'	Surface		7	
Mabel Reid	1	Compound	10"-18"			1	Vertical	6 0	9 4	..	[7]18'x5'5"	Surface	5'2" D	3	P.W.D. No. 14.
Rona	1	Compound	10" & 20"x16"		New-Burrell-Johnson I. Co.	1	Upright	5 2	9 6	..	5'4"x18"x22"	Surface	5'6"	6	P.W.D. No. 4.
Eileen	1	Simple	12"x12"		Orr & Sembower	1	Scotch	6 6		..	[8]		4'4"	3	P.W.D. No. 102.
Alva	1	Compound	9½" & 17⅛"x12"		Low Bros	1	Fitzgibbon	9¼ 7	8 1	..	7"x9"x12"	Jet	4'8"	8	P.W.D. No. 103.
Sir John	1	Simple	16"x20"			1	Fitzgibbon	[10]	10 8	..			6'	3	P.W.D. No. 105.
Mina G	1	Simple	12"x12"			1	Scotch	6 0	9 0	..			4'7"	3	P.W.D. No. 106.
Aylmer	2	Simple	6"x7"			1	Fitzgibbon	[11]	6 0	..			2'-3"	3	P.W.D. No. 108.
Hercules	1	Triple expansion	13½", 22"& 36"x21"		Polson Iron Works	1	Scotch	10 6	12 6	..	8'6½"x2'5½"	Surface	8'	9	P.W.D. No. 109.
Archie Stewart	1	Simple	21"x18"		J. & R. Weir	1	Square Fire Box	7 3	[12]12 4	..			6'6"	6	P.W.D. No. 110.
Marie Louise	2	Simple	8"x9"		F. X. Drolet	1	Horizontal	4 0	4 0	..			3' 4"	3	P.W.D. No. 111.
Maggie K	1	Simple	12"x12"			1	Return Tubular	[13]	7 5	..			4'4"	3	P.W.D. No. 112.
Cliffside	1	Simple	15"x15"		J. & R. Weir	1	Fitzgibbon	[14]	9 3½	..			5' 4"	3	P.W.D. No. 113.
St. Paul	1	Compound	12" & 24"x18"		Knight & Gibson	1		[15]	12 0	..	3'x14"	Jet	6' 1"	3	P.W.D. No. 114.
Monitor	1	3 Cyl. Simple	12"x18"		J. & R. Weir	1	Scotch	8 6	9 7	..		Wheeler Surface	6' 2"	7	P.W.D. No. 115.
Storm King	1	Compound	16" & 32"x24"		F. X. Drolet	1	Scotch	10 0	12 0	..		Surface	8'	9	P.W.D. No. 116.
Peel	1	Triple expansion	12", 19"& 30"x20"		McKie & Baxter	1	Scotch	9 6	11 11	..	[16]10' long	Surface	10' 6"	8	P.W.D. No. 117.
Dora	1	Simple	10"x12"			1	Tug	4 2	[17]8 0	..			4' 6"	3	P.W.D. No. 118.
Ottawa	1	Compound	11" & 20"x16"		J. & R. Weir	1	Fitzgibbon	[18]4 6	9 0	..		Wheeler Surface	5' 6"	3	P.W.D. No. 119.
Trudeau	1	Simple	16"x18"		Lockport, N.Y	1	Tug	[19]6 10	12 3	..			6'	3	P.W.D. No. 120.
Annette	1	Compound	5" & 10"x12"		Beauchemin & Cie	1	Upright	4 6	7 6	..	4'x6'	Surface	3'	4	P.W.D. No. 122.
Fashion	1	Compound	14" & 24"x13"		F. W. Wheeler Co	1	Fitzgibbon	5 9	6 3	..		Jet	6'	3	P.W.D. No. 123.
Blanche	1	Simple	10"x12"			1	Fitzgibbon			..			3' 6"	3	
Daisy	1	Simple	9"x10"			1	Fitzgibbon	[20]4 0	6 6	..			4'	3	
Delisle	1	Simple	18"x20"		Bell Steam Engine Works	1	Tug	[21]6 6	12 0	..			6' 2"	3	
Lion	1	Compound	4" & 8"x6"		F. X. Drolet, Que	1	Upright	3 4	5 0	..	2½" pipe	Keel	35"	2	
J. G. Witherbee	1	Compound	18" & 36"x24"			1	Tug	[22]9 0		..	3'x4'9"	Admiralty	8' 4"	5	
Lisgar	1	Simple	9"x9"		Doty	1	Scotch	5 0	7 0	..			3' 6"	4	P.W.D. No. 202.
Peguis	1	Simple	12"x12"		Doty	1	Scotch	6 0	8 0	..			5'	4	P.W.D. No. 204.
Friday	1	Simple	12"x12"		Doty	1	Scotch	6 0	8 0	..			5'	4	P.W.D. No. 205.
Carberry	2	Simple	10"x10"		Doty	1	Scotch	7 0	9 0	..			2'-4"	4	
Point Ellice	1	Compound	16" & 34"x24"	500	Ross & Duncan	1	Scotch	12 0	11 0	..	[23]	Surface	8'6" D., 10' P.	[23]4	P.W.D. No. 301.
Point Garry	1	[25]Imperial	3-8¾"x10½"		Imperial								4' 1"	2	P.W.D. No. 305.
Point Grey	1	Compound	17" & 40"x27"	600	Campbell & Calderwood	1	Scotch	14 2	12 1½	..	[26]	Surface	10'	[27]4	P.W.D. No. 306.
Point Hope	1	Compound	9½" & 20"x14"	135	John Doty	1	Scotch	7 8½	9 1½	..	4'4"x2'	Surface	5'	[28]0	P.W.D. No. 307.
Petrel	1	Compound	11" & 24"x16"	250	Victoria Mach'y. Dep	1	Scotch	9 6	10 10	..	[29]	Surface	7' 6"	6	Dr'd'g. Plant at Victoria, B.C.

[1] Full 650. [2] Cooling surface 800 sq. ft. [3] 500 ⅝" tubes. [4] By calculation. [5] 589 tubes 7' long x ¾" dia. [6] 600 tubes. [7] 216 tubes. [8] Heater. [9] Wide. [10] Over all. [10] 6' W., 8' 4" H. [11] 4' W., 6' H. [12] 9' 1" high. [13] 4' 7" W. x 7' 4" H. [14] 4' 9" W. x 8' 4½" H. [15] 6' W. x 7' H. [16] 427-⅝" tubes, 698·5 sq. ft. cooling surface. [17] 7' 4" H. [18] Wide x 7' H. [19] Wide x 8' 6" H. [20] Wide, 6' H. [21] Wide, 9' H. [22] Wide x 13' H. Dome 5' 2½". [23] 485 sq. ft. cooling surface. [24] 2 shifts. [25] San Francisco, 3 Cyl., 4 Cycle Gas Engine. [26] 800 sql ft. cooling surface. [27] 2 shifts. [28] 2 shifts. [29] 260 sq. ft. cooling surface.

Name.	Official Registry Number.	Registered Tonnage.	When Built.	Where Built.	Builder.	Cost Equipped.	Present estimated Value.	Hull. Material.	Hull. Length, O. A.	Hull. Beam Amidship.	Hull. Depth.	Hull. Working Draft.	Average Speed.
						$	$		'	"	' "	' "	
.....	.....	.....	1914	New Westminster, B.C.....	Westminster Marine Rys....	5,870	5,870	Wood.....	40	11	4 4	4 6	9½ M.p.h.
Knockabout.....	.....	.....	1913	Vancouver, B.C.....	W. Menchions.....	5,500	5,000	Wood.....	40	11	4 4	4 6	9½ M.p.h....
Roustabout.....	.....	.....	1911	Vancouver, B.C.....	Vancouver Shipyards, Ltd..	2,900	2,100	Wood.....	31	9	3 10	4 0	7½ Knots....

Name.	Engines. Number.	Engines. Size.	Engines. Type.	Engines. Make.	Engines. I.H.P.	Propellers. Number.	Propellers. Size.	Fuel. Capacity.	Fuel. Kind.	Fuel. Average consumption per day, 10 hr.	Number in crew.	Sleeping accommodation for.	Size of Life Boat.	Number of Life Belts.	Where Used.	Remarks.
.....	1	.....	Gasoline.	San Francisco Standard...	40	....	37".....	450 gal....	No. 1 distillate.	35 gal.....	1	..		4	B.C..	[1] 3 cyl., 4 cycle.
Knockabout.....	1	.....	Gasoline.	Corliss.....	35	1	37".....	450 gal....	No. 1 distillate.	33 gal.....	1	..		4	B.C..	[2] 3 cyl.
Roustabout.....	1	6 x7½ .	Gasoline.	Buffalo "Heavy Duty"...	[2]24	1	29½ D. x 34" P.	90 gal.....	No. 1 distillate.	22½ gal....	1	.....		1	B.C..	[1] 4 cyl. [2] B.H.P.

DEPARTMENTAL LAUNCHES, 1914

When Built	Where Built.	Built by.	Cost.	Present value	Hull.				Engine.		Fuel.	In connection with	Remarks.
					Material.	Length.	Beam.	Depth.	Type.	Horse Power.			
			$	$		'	' '	' '					
1907..	Scihan, Germany	Fruhling Dredge Co	...	350	Wood	18	6 0	2 6	Yale, 4 Cycle	5	Gasoline..	P.W.D. No. 301.	
1912..	North Vancouver, B.C.	A. Linton	448	400	Wood	18	5 6	2 4	Ferro, 2 Cycle	5½	Gasoline..	P.W.D. No. 303...	
1911..	Vancouver, B.C.	Vancouver Shipyards, Ltd.	450	250	Wood	18	6 0	2 6	Grey, 2 Cycle	8	Gasoline..	P.W.D. No. 307..	
1914..	Vancouver, B.C.	Y. M. Dafoe	335	335	Wood	18	5 6	2 4	Caille Perfection, 2 Cycle	8	Gasoline..	Divers, B.C.	
.....	.....	.....	.....	400	Wood	18	5 6	2 6	Canadian Fairbanks Morse	8	Gasoline..	Drilling Plant, B.C.	2 Cyl., 2 Cycle.

Departmental Number.	When built.	Where Built.	Builder.	Cost each.	Present estimated value.	Material of construction.	Length.	Breadth.	Depth.	Draft light.
				$	$		′ ″	′ ″	′ ″	′ ″
No. 101 and 102	1907	Collingwood, Ont	Collingwood Shipbuilding Co	28,000	22,000	Steel	136 4	31 3	11 0	5 0
No. 103 and 104	1907	Toronto, Ont	Polson Iron Works	28,000	22,000	Steel	145 9	31 3	11 0	5 0
No. 105 and 106	1906	New Glasgow, N.S	I. Matheson & Co	11,000	7,000	Steel	106 0	23 0	8 7	3 2
No. 107		Pictou, N.S	Pictou Foundry and Machine Co	10,000	7,000	Steel	107 0	23 0	10 0	3 0
No. 108 and 109	1907	St. John, N.B	Jas. Fleming	11,000	3,500	Iron and steel	107 0	23 0	7 6	3 2
No. 110 and 111					1,500	Wood	71 6	19 8	7 2	3 5
No. 112, 113 and 114					300	Wood	55 0	19 0	7 0	2 6
No. 151	1897	Point Levis, P.Q	Carrier Laine Co	11,000	7,000	Steel	106 6	22 6	8 0	3 0
No. 152		New Glasgow, N.S	I. Matheson & Co	11,000	7,000	Steel	106 6	22 6	8 0	3 0
No. 153 and 154	[1]1906	Yarmouth, N.S	The New Burrill Johnson Iron Co	11,000	9,000	Steel	110 0	22 10	8 0	3 0
	1906	St. John, N.B	Jas. Fleming & Son			Steel	107 0	23 0	10 0	3 0
	1913	New Glasgow, N.S	Brown Machine Co	14,000	14,000	Steel	75 0	26 6	8 3	2 6
No. 1 and 2	1907	St. Jean Iberville	P.W.D			Wood	68 0	21 0	7 0	2 6
No. 10	1904	Ottawa	P.W.D			Wood	71 0	19 0	7 0	2 6
No. 11	1904	Ottawa	P.W.D			Wood	73 0	19 0	7 0	2 6
No. 12 and 13	1910	Aylmer	James Bailie	2,000	1,500	Wood	54 0	13 0	5 0	18
No. 14	1908	Collingwood	Collingwood Shipbuilding Co	24,000	21,000	Steel	144 0	31 0	11 6	5 0
No. 15	1907	Collingwood	Collingwood Shipbuilding Co	24,000	21,000	Steel	144 0	31 0	11 0	5 0
No. 18 and 19	1914	Roberval	Johnny Poitrus	6,624		Wood	60 0	16 0	6 0	20
No. 20 and 21	1905	Sturgeon Falls	Tassier & Smith	3,000	1,500	Wood	70 0	19 4	7 0	2 0
No. 22 and 23		Sorel, P.Q	P.W.D		1,500	Wood	62 0	17 4	7 0	3 0
No. 24 and 25	1906	Buckingham	W. H. Kelly	4,000	3,200	Wood	52 10	11 2	5 5	19
No. 26 and 27					2,500	Wood	61 0	16 9	6 0	2 0
No. 28 and 29					4,000	Wood	76 0	22 6	7 0	2 4
No. 32 and 33					900	Wood	72 0	20 0	7 4	2 8
No. 35	1905	Ottawa	P.W.D			Wood	90 0	25 0	11 0	3 0
No. 38 and 39	1909	Toronto	Toronto Ship Yard Co	14,000	14,000	Steel	102 0	28 3	9 0	2 0
No. 40 and 41	1903	Temiskaming Station	Charles Morin	2,000	1,600	Wood	67 0	25 6	5 0	18
No. 42 and 43						Wood	54 5	14 0	5 5	2 0
No. 44 and 45	1899	Ottawa	P.W.D		1,600	Wood	72 0	20 3	7 2	3 0
No. 48	1912	Grandes Piles, Q	P.W.D			Wood	55 0	20 0	5 0	0 8
No. 50					4,500	Wood	132 2	28 6	9 0	3 0
No. 53 and 54						Wood	89 0	25 0	10 0	3 0
						Wood	90 0	25 0	10 0	3 0
		Ottawa				Wood	72 0	21 0	9 0	2 6
	1913	Sturgeon Falls	Chas. Williams	4,700	4,500	Wood	70 0	19 4	7 0	2 6
No. 115 and 116	1906	St. John, N.B	J. Flemming, Phoaix Foundry	17,000	14,000	Steel	108 0	23 10	8 3	2 6
No. 201 and 202	1911	Selkirk, Man	P.W.D	4,500	3,150	Wood	80 0	20 0	8 0	3 0
No. 203 and 204	1909	Selkirk, Man	P.W.D	2,250	1,500	Wood	60 0	16 0	6 0	2 6
No. 205 and 206	1912	Selkirk, Man	P.W.D	3,000	2,430	Wood	60 0	16 0	6 0	2 6
	1910	Winnipegosis, Man	P.W.D	2,800	1,700	Wood	60 0	16 0	6 0	2 6
	1910	Westbourne, Man	P.W.D	2,700		Wood	60 0	16 0	6 0	2 6
	1906	Westbourne, Man	P.W.D	3,000		Wood	60 0	16 0	6 0	2 6
No. 271	1911	Nelson, B.C	Thos. Cunningham		4,000	Wood	74 3	24 0	8 6	18
No. 303 and 304	1911	Vancouver	Charles Mayhew	7,810	8,000	Wood	90 0	23 0	7 7	1 6
No. 305 and 306	1907	Victoria	W. Turpel & Sons	15,000	12,000	Wood and steel	102 0	27 6	10 6	30
No. 307	1914	North Vancouver	Wallace Shipyard Ltd	12,125	12,125	Wood	100 0	27 0	10 6	18
No. 308, 309 and 310	1912	Vancouver	Charles Mayhew	12,500	10,000	Wood	100 0	26 6	11 0	4 0

Departmental Number.	Draft loaded.	Number of Hoppers.	Capacity each Hopper.	Total capacity.	Hoisting arrangement for Hopper Doors.	Used in connection with.	Province where used.	Remarks.
	′ ″		Cu. Yds.	Cu. Yds				
No. 101 and 102	11 0	8	70	560	Side shafts, hand lever purchase	P. W. D. No. 1	Maritime Provinces	
No. 103 and 104	11 0	8	70	560	Side shafts, hand lever purchase	P. W. D. No. 1	Maritime Provinces	
No. 105 and 106	7 8	2	95	190	Winch and chain, lever hoist	P. W. D. No. 2	Maritime Provinces	
No. 107	7 6	2	96½	193	Lever	P. W. D. No. 3	Maritime Provinces	
No. 108 and 109	7 2	2	100	200	Ratchet windlass on each end of scow	P. W. D. No. 9	Maritime Provinces	
No. 110 and 111	6 3	2	50	100	Tubular barrel and chain, bar and ratchet	P. W. D. No. 10	Maritime Provinces	
No. 112, 113 and 114	6 6	1	50	50	Barrel (wooden) and chains	P. W. D. No. 11	Maritime Provinces	
No. 151	7 0	2	100	200	Fore and aft winch hoist	P. W. D. No. 6	Maritime Provinces	
No. 152	7 0	2	100	200	Fore and aft winch hoist	P. W. D. No. 6	Maritime Provinces	
No. 153 and 154	6 0	2	107½	215	Crab winch, with ratchet	P. W. D. No. 7	Maritime Provinces	[1] No. 154 was built in 1907.
	7 6	2	100	200	Lever	P. W. D. No. 3	Maritime Provinces	
	7 0	3	50	150	Hand hoisting gear	P. W. D. No. 8	Maritime Provinces	Two of them.
No. 1 and 2	5 6	2	26	52	Chain on roller	P. W. D. No. 106	Ont. and Que	
No. 10	6 0	2	48½	97	Chain and roller	P. W. D. No. 123	Ont. and Que	
No. 11	6 0	2	50	100	Chain and roller	P. W. D. No. 123	Ont. and Que	
No. 12 and 13	4 6	2	14	28	Chain and roller	P. W. D. No. 108	Ont. and Que	
No. 14	11 0	8	75·7	607	Steam winding engine	P. W. D. No. 109	Ont. and Que	
No. 15	11 0	8	63·3	507	Steam winding engine	P. W. D. No. 109	Ont. and Que	
No. 18 and 19	4 6	2	32½	65	Chain and wooden roller	P. W. D. No. 111	Ont. and Que	
No. 20 and 21	7 0	2	50	100	Chain and roller	P. W. D. No. 112	Ont. and Que	
No. 22 and 23	6 0	2	39	78	By hand	P. W. D. No. 113	Ont. and Que	
No. 24 and 25	4 3	2	15	30	Iron rollers worked by hand	P. W. D. No. 2	Ont. and Que	
No. 26 and 27	5 6	2	33	66	Wooden roller and chain	P. W. D. No. 103	Ont. and Que	
No. 28 and 29	6 0	3	40	120	Chain and cable on rollers	P. W. D. No. 105	Ont. and Que	
No. 32 and 33	6 7	2	52½	105	Chain and roller	P. W. D. No. 105	Ont. and Que	
No. 35	9 6	6	41½	249	Chain and roller	P. W. D. No. 115	Ont. and Que	
No. 38 and 39	8 6	5	60	300	Chain and roller	P. W. D. No. 117	Ont. and Que	
No. 40 and 41	4 0	2	18½	37	Steel roller	P. W. D. No. 118	Ont. and Que	
No. 42 and 43	5 0	4	8¾	35	Eccentric dumper	P. W. D. No. 119	Ont. and Que	
No. 44 and 45	6 6	2	50	100	Hand	P. W. D. No. 120	Ont. and Que	
No. 48	4 0	1	11	11	Ratchet	P. W. D. No. 122	Ont. and Que	
No. 50	8 0	6	73·3	440	Chain, hand winding	P. W. D. No. 117	Ont. and Que	
No. 53 and 54	9 0	6	43·83	263	Chain on roller	P. W. D. No. 110	Ont. and Que	
	9 0	6	41·66	250	Wire on roller	P. W. D. No. 116	Ont. and Que	
	8 6	2	51	102	Wire on roller	P. W. D. No. 116	Ont. and Que	
	7 0					P. W. D. No. 112	Ont. and Que	
No. 115 and 116	7 0	2	100	200	Hand winding	P. W. D. No. 4	Ont. and Que	
No. 201 and 202	7 0	2	50	100	Rollers	P. W. D. No. 205	Man., Sask., Alta	
No. 203 and 204	5 0	2	30	60	Rollers	P. W. D. No. 204	Man., Sask., Alta	
No. 205 and 206	5 0	2	30	60	Rollers	P. W. D. No. 202	Man., Sask., Alta	
	5 0	2	30	60	Rollers	P. W. D. No. 203	Man., Sask., Alta	
	5 0	2	30	60	Rollers		Man., Sask., Alta	
	5 0	2	30	60	Rollers		Man., Sask., Alta	
No. 271	8 0	3	45	135	Ratchet and cable	P. W. D. No. 302	B. C.	
No. 303 and 304	7 0	4	45	180	Hand, pawl and ratchet	P. W. D. No. 307	B. C.	
No. 305 and 306	9 8	5	60	300	Chain, wire, shaft, hand hoist	P. W. D. No. 301	B. C.	
No. 307	8 6	5	52	260	Cog hand gear for air or steam	P. W. D. No. 313	B. C.	
No. 308, 309 and 310	10 0	5	52	260	Worm gear operated by air	P. W. D. No. 306	B. C.	

DEPARTMENTAL FLAT DECK SCOWS, 1914.

Number.	When built.	Where built.	Builder.	Cost.	Present estimated value.	Material of construction.	Thickness of sides.	Thickness of bottom.	Thickness of deck.	Length.	Beam.	Depth.	Draft light.	Draft loaded.	Used in connection with.	Remarks.
				$	$		"	"	"	′ ″	′ ″	′ ″	′ ″	′ ″		
.....	1914	Pictou, N.S.	William Talbot	450	450	Wood	3½	3½	3	31 0	12 0	3 0	0 4	2 0	P.W.D. No. 5...	For removing ashes, etc. from dredge.
No. 40						Wood	6	4	3	50 0	19 0	5 0	1 3	4 0	P.W.D. No. 119	
No. 42	1903	Temiskaming	Charles Morin	1,200	800	Wood	3	3	3	36 0	20 4	4 6	1 6	4 6	P.W.D. No. 118	
.....						Wood	4	4	3	91 0	32 0	8 6	2 6	3 6	P.W.D. No. 110	
.....					2,000	Wood	4	4	3	85 0	30 0	8 6	2 0	6 0	P.W.D. No. 117	
.....	.....	Chicoutimi	P. W. D			Wood	5	4	3	89 0	35 0	12 0	2 6	9 0	P.W.D. No. 115	Coal scow.
.....	1908	Roberval	Johnny Poitras	200	200	Wood	3	3	2	30 0	14 0	3 0	0 10	2 0	P.W.D. No. 111	Used for carrying wood or coal.
.....	.....	Deschenes			300	Wood	3	3	4	40 0	16 0	3 4	0 6	2 6	P.W.D. No. 108	One for fuel and one with cabin for accommodation.
.....					1,400	Wood	4	3	3	50 6	20 6	4 9	1 6	4 0	P.W.D. No. 103	
.....						Wood	4	3	3	50 0	20 0	4 0	1 0	3 4	P.W.D. No. 122	
.....	1906	Buckingham	W. H. Kelly	800	640	Wood	3	3	3	49 7	18 2	4 0	1 3	2 7	P.W.D. No. 2	
.....					2,000	Wood	6	4	3	78 6	18 0	9 0	3 0	4 6	P.W.D. No. 113	
.....	1913	[1] Ottawa	P. W. D	1,000	400	Wood	4	2	3	51 0	20 0	5 0	1 3	4 0	P.W.D. No. 112	[1] Shipped knock down and assembled, Sturgeon Falls.
.....						Wood	3	3	3	75 0	18 0	5 0	1 3	4 0	P.W.D. No. 106	Coal barge.
.....	1908	Penticton, B.C.	P. W. D	350	250	Wood	2	3	2	34 0	14 0	3 3	0 6	0 10	P.W.D. No. 304	
.....	1908	Chase, B.C.	P. W. D	850	765	Wood	3	3	2	40 0	16 0	3 7	0 6	0 12	P.W.D. No. 309	
.....	1912	Nakusp, B.C.	S. Mills		1,500	Wood	2½	2½	2½	60 6	18 4	4 5	1 0	2 4	.....	Coal tender.
.....	.....	.....	.....	.....	500	Wood	2½	2½	2	51 0	16 0	3 0	0 6	1 2	.....	.....
.....	1911	Nelson, B.C.	Thos. Cunningham		1,200	Wood	3½	3	3	60 0	18 0	4 4¾	0 9	3 0	P.W.D. No. 302	Fuel barge and a forge and shop.
.....	.....	Golden, B.C.			1,000	Wood	3	3	2½	50 0	18 0	3 6	0 10	2 2	Snag boat Muskrat.	
.....	1913	Nelson, B.C.	George Hale	1,653	1,600	Wood	6&4	3	1	50 0	18 0	4 0	0 9	3 4	Pile driver No.1	Barge carrying capacity 50 tons. 12" plank and 1 sheeting.
.....	.....	Nakusp, B.C.			500	Wood	2½	2½	2	40 0	20 0	4 6	1 0	1 6	[1] Pile driver	As boarding camp.
.....	.....	Golden, B.C.			850	Wood	3	3	3	50 0	18 0	3 6	1 0	2 6	.....	
.....	.....	.....	.....	.....	800	Wood and iron.	6	4	3	86 0	24 0	6 0	1 6	4 6	P.W.D. No. 307	
.....	1913	New Westminster, B.C.	Westminster Marine Railways	3,236	3,000	Wood	4	2½	2	(32 6) (26 6)	12 0	(2 8) (2 4)	0 10	1 4	P.W.D. No. 305	3 long and 8 short pontoons.
.....	1911	Vancouver, B.C.	Vancouver Shipyards	3,702	3,500	Wood	4	2½	2	(32 6) (26 6)	12 0	(2 8) (2 4)	0 10	1 4	P.W.D. No. 305	7 long and 8 short pontoons.
.....	1910	New Westminster, B.C.	P. W. D		2,000	Wood	4	2½	2	32 6	12 0	2 8	0 10	1 4	P.W.D. No. 305	14 pontoons.
.....	1901	New Westminster, B.C.	Royal City Planing Mills		.....	Wood	4	2½	1½	(34 0) (21 0)	12 0	2 3	0 10	1 4	P.W.D. No. 305	1 long and 11 short pontoons.
.....	1897	New Westminster, B.C.	P. W. D		.....	Wood	6	4	3	76 0	24 2	5 0	1 4	4 0	P.W.D. No. 305	Pipe scow.
.....	1904	New Westminster, B.C.	P. W. D		1,800	Wood	5	3	2½	60 0	18 0	4 0	1 8	2 8	P.W.D. No. 305	Power scow, blacksmith and carpenter shop.
..	1910	New Westminster, B.C.	E. Mercer	1,000	700	Wood	5½	3	2½	45 0	16 0	5 0	1 0	3 0	P.W.D. No. 305	Water scow.
..	.....	New Westminster, B.C.	P. W. D	.....	4,000	Wood	6	4	3	86 6	27 0	7 0	1 6	5 0	P.W.D. No. 305	Oil fuel scow.

	1913	North Vancouver	Wallace Shipyards Ltd. & Standard Iron Works.	5,600	5,100	Wood	6	4	3	66 9	21 0	6 0	0 10	5 0	P.W.D. No. 306	Oil fuel scow.
Spoonbill	1911	Penticton, B.C.	P. W. D.	1,250	1,250	Wood	3	3	2	40 0	16 0	3 10	0 10	1 2	P.W.D. No. 304	Bunk scow.
Mallard	1914	Chase, B.C.	P. W. D.	1,762	1,762	Wood	3	3	2	50 0	18 0	4 0	0 10	1 2	Kuspidor	Bunk scow.
	1913	North Vancouver	Wallace Shipyard, Ltd.	2,800	2,650	Wood	5	3	2½	60 0	22 0	3 0			P.W.D. No. 306	Bunk scow, number of bunks, 22.
	1912	North Vancouver	Wallace Shipyard, Ltd.	2,500	2,200	Wood	5	3	2½	60 0	20 0	3 0			P.W.D. No. 301 & 307.	Bunk scow, number of bunks, 24.
	1913	Victoria	Victoria Machinery Depot	177	150	Wood				18 0	10 0	2 0				Diver's outfit cost $350.

DRY DOCKS.

The Dominion Government owns three dry docks and operates two, viz., the Lorne dry dock, at Lévis, province of Quebec; the Kingston dry dock, at Kingston, province of Ontario, and the Esquimalt dry dock, at Esquimalt, near the city of Victoria, in British Columbia.

LÉVIS DRY DOCK.

Lévis is situated on the north shore of the river St. Lawrence, opposite Quebec.

During the past fiscal year, the dock was kept in good condition by the regular staff, and thirty-one vessels were docked, six of which wintered in the dock.

The revenue for the fiscal year was $28,934.67, and the expenditure for maintenance and repair was $17,099.81.

ESQUIMALT DRY DOCK.

The staff has been employed in keeping the buildings and machinery in repair, and in docking and undocking ships. A house was built by contract on the dock property for the use of the assistant engineer. Leaves and other litter have, from time to time, been cleared from the grounds, and that portion devoted to traffic topped with ashes.

The main gear wheel developed several flaws, and was replaced with a new casting, while the old wheel is kept in reserve.

All marine growth and sediment was removed from the recess, and the caisson cleaned and painted. Boilers, pumps, and other machinery have been carefully attended to, and all necessary repairs effected.

The meeting face and hauling gear on the caisson is becoming badly worn, and will require to be renewed in the near future; otherwise the plant is in a good state of repair. The original meeting face on the caisson was made of teak wood and has been in use ever since the dock was first opened, some twenty-seven years ago. As repairs to the meeting face can only be effected during the highest tides, it would be advisable to have the necessary material on hand, especially as teak of suitable dimensions for this work is not stocked by local dealers. Material required to renew meeting face should be teak of the following dimensions:—

10 pieces 8½ by 16 inches by 14 feet for inverts.

4 pieces 8½ by 14 inches by 30 feet for verticals.

The matter of securing this material should not be delayed as the leakage at present is considerable and increasing.

A travelling crane or other means for handling material, required for ship repairs, is urgently needed at this dock.

The dwelling-house for second engineer was commenced September 6, and was completed November 11, 1913.

The amount expended was $3,475.

KINGSTON GRAVING DOCK.

The revenue was $10,000.

On the 1st of May, 1910, the Kingston Shipbuilding Company took possession of the dock under lease, the rental of which, $10,000 per annum, was payable at the end of each year.

LOCKS AND DAMS.

MONTREAL RIVER (LATCHFORD DAM).

Latchford, district of Nipissing, is a small town on the T. & N. O. Ry., located on the Montreal river.

At its last session, Parliament granted $50,000 for the construction of a dam at Latchford, for the purpose of improving navigation to Elk lake, and regulating, to some extent, the river for power purposes. Work was started in April, 1910, by Messrs. Sinclair and Campbell, but made very little progress; their contract was cancelled July 27, 1912. The dam was completed by the department and put under operation in November, 1913. (For details of work previous to April 1, 1913, see annual report 1912-13).

The dam, 382·5 feet long, is of concrete, and provides eleven stop-logged sluice-ways, 20 feet wide, separated by piers 4 feet 9 inches wide and 20 feet high. Floors of sluice-ways are 3 to 4 feet thick, on bedrock, some 20 feet below R.W.S., and the abutments are riprapped up and down stream.

On the northwest side, a core wall, 31 feet long, extends from bedrock to the R.W.S. Four of the piers have been extended 8 feet downstream for a height of 13 feet, so as to drive the logs between waste dumps, 75 feet apart and closed in by 16 by 16-foot cribs and stiff booms. Upstream, three cribs 16 by 16 feet, have been built to hold stiff booms, some 900 lineal feet. The dam is regulated by steam and hand-operated log-lifter from the reinforced concrete bridge.

Detail of work from April 1, 1913, to March 31, 1914:—

Inside the second cofferdam, concreting which had been started March 31 was completed April 19; excavation to bedrock for sluice-ways Nos. 7 and 8, and for piers Nos. 6 and 7, having been rushed to fully use this cofferdam before the spring flood. Pumps were removed by the 21st, and the river reached its maximum stage April 30, only 2 inches below the flood height of 1909 and proposed R.W.S.

The third cofferdam for balance of structure (sluice-ways Nos. 3, 4, 5, 6, and piers Nos. 3, 4, 5) was started April 21. The last crib on the upstream side was placed June 12, when the flow (W.S. elevation 904) was chiefly diverted to sluice-ways Nos. 11, 10, 9, 8. Over 200 lineal feet of 2 and 3-ply sheeting was placed by the diver, June 13 to 27, and this coffer was banked with dump car from borrow pit on the southeast side June 7 to July 2. On the downstream side, excavation for cribs was commenced June 18, crib-work commenced July 5; sheeting finished July 9; and some 150 feet of earth banking placed by July 25. Sluice No. 7 having been stop-logged, pier No. 6 and the southeast abutment formed the ends of the third cofferdam, enclosing an area of river-bed about 65 by 150 feet. A counterdam of gravity type had to be built inside to handle leakage. The centrifugal pumps two 8 by 10 and one 10 by 12, having been overhauled during the flood period, were tried out July 16 and, after stopping the worst leaks, were put into constant service July 24. During the excavation and concreting operations, these pumps and a 3 by 4 Emerson steam pump had to be moved for different sumps, and pumping was finally discontinued October 18, pumping operations having been carried through a period of twelve months. Excavation inside the third cofferdam was commenced July 25, and carried on intermittently to September 29. Much of the material, including bed of cyclopean boulders, having had to be re-handled. Concreting operations were again started August 18 at sluice No. 3, and were carried on alternately with the excavation until the 4th of October, when pier No. 5 was completed. Later the three shore piers and

abutments, originally built by the contractors, were built up another foot to the elevation of the seven river piers built by the department; the wings of the northwest abutment were also built up 1 foot.

Work of placing 12-inch I-beam girders and 56-pound rails for log-lifter was started November 17, and the latter erected November 19 to 22. As the department had under consideration the raising of piers and abutments 5 feet for power development, as well as a possible traffic bridge across the dam, only a temporary 2-inch plank flooring was placed over the 10-inch I-beam stringers on the 29th November. The permanent concrete deck to be put on during summer of 1914. Three more open-face cribs 16 by 16 feet were built to hold stiff booms, aggregating some 900 lineal feet, for the passage of logs. In October, November and December, considerable work was done in removing third cofferdam and dismantling crusher, mixer, and travelling derrick. In March, the water was allowed to lower to its normal stage, and the remaining portions of cofferdams, together with cellar inflow and outflow of dam, were thoroughly removed by blasting, etc. The sluice-ways were cleaned of all débris, and the river banks protected with riprap above and below the abutments.

Expenditure to March 31:—

For work at Latchford	$41,724 56
For work in Pork rapids	1,264 08
Total	$42,988 64

RIVIÈRE DU LIÈVRE, LOCK AND DAM.

During the past year, the lock at Poupore has been kept in operation during navigation season. During April, May and June the booms were repaired, placed and operated. Repairs consisting of painting, papering and placing new floor in lockmaster's house; also fencing new road and one side of property were carried out in August. The training pier above the lock was rebuilt for a height of 5 feet, and replanked for a length of 120 feet from October 8 to November 20. Twelve new stoplogs were purchased for repairs to the locks.

Work of pumping out the locks, to place new valves in lower gates, was attempted in November, but had to be discontinued, owing to fall floods. Work was continued in March to take advantage of low-water conditions, but owing to freezing weather and the rough nature of the earlier work, the stoplog cofferdam could not be staunched and had, therefore, to be removed. This work will unavoidably have to be carried out during the navigation season at summer low-water stage.

Maintenance of these works during the year has cost: Wages, $3,103.96; materials for repairs, $803.03; telephone, $15; supplies, $604.81; forming a total of $4,526.80.

YAMASKA LOCK AND DAM.

The lock and dam built under contract about 1882 are situated about 2 miles below the village of St. Michel d'Yamaska, where the Quebec, Montreal and Southern railway crosses the Yamaska river, and where the Government built a wharf in 1909.

The Yamaska river rises in the county of Brome and, after a course of over 90 miles, falls into the St. Lawrence at the head of lake St. Peter. By the construction of these works, and dredging through the shoals below and above the lock, the river was rendered navigable, for vessels having a maximum draft of 4 feet, to Belle Point or Rapide de la Grosse Roche, a distance of 20 miles from the mouth of the river.

The dam consists of a stone-filled crib with plank sheathing on the upper side, 502 feet long, with a stone-filled close-faced crib abutment at each end.

At the last session of Parliament, the sum of $4,500 for repairs and renewals to lock and dam, and a sum of $3,900 for the maintenance of lock and dam were voted. On June 10, 1913, authority was received to expend these amounts by day labour.

Work of repairs and renewals to lock and dam were commenced on September 5, and carried on until October 25, 1913, and consisted in completely renewing the apron of the dam with 6-inch timber, and completing the pile sheathing in front of the dam.

In the execution of the above work, some 14,824 feet b.m. of timber, and 400 pounds of iron were used.

During the fiscal year 1913-14, the expenditure was $1,837.24.

SLIDES AND BOOMS.

The Dominion Government owns and operates slides and boom works, built to facilitate the passage of square timber, round logs, flatted and dimension timber, etc., on the river Ottawa and tributaries; on the St. Maurice river; the Saguenay river; and at Fenelon Falls and Burleigh Falls on the Trent river.

In the subjoined reports, the superintending engineers of the river works, Messrs. J. C. Scott, F. X. T. Berlinguet and P. E. Amiot, give particulars relative to the construction, improvements, and repairs carried out under their supervision on Government slides, booms, piers, dams, streams, buildings, etc., during the fiscal year; the expenditure incurred for staff, maintenance, improvements, etc.; the quantities of the various descriptions of timber that pass through their works, and other information of general interest and utility to lumbermen and the public at large.

(By R. F. H. Bruce, Superintending Engineer.)

Ottawa, May 18, 1914.

The Chief Engineer,
Department of Public Works,
Ottawa.

Sir,—I have the honour to submit herewith the following report on the works under my charge, for the fiscal year ended 31st March, 1914:—

OTTAWA RIVER WORKS—ORDINARY REPAIRS—STATIONS ON OTTAWA RIVER.

North Chaudière Station.—The lower slide was extended 20 feet, a crib being sunk in from 5 to 12 feet of water to form the bottom and carry the side piers. The bottom of the slide was laid with new timbers sheathed with iron bars to protect them from abrasion from passing logs. The tops of the side piers were covered with 3-inch plank. A new platform was laid on the bulkhead of slide, and a sluice-gate was made to regulate the flow of water in slide.

South Chaudière Station.—Portions of the bottom of slide were repaired, and the guide booms at entrance to steel bulkhead were strengthened.

TRIBUTARIES OF OTTAWA RIVER.

Gatineau River.—Pier No. 6, supporting the main boom, was rebuilt from low-water line. The pier is 27 feet long, 22 feet wide and 15 feet high above water level. Pier No. 1, at mouth of new canal, had four courses of timber added to its top. At the upper end of main boom, a new pier was built on the shore to secure the end of the boom. This pier is 46 feet long in front, 39 feet in rear, the width being 14 feet at outer end and 35 feet at the shore. The top is drawn in to 20 feet in width at the shore end, the outer end being carried up plumb. The face is covered with 3-inch plank to provide a glance. Three lengths of boom, 121 lineal feet, were added to the main boom, this extension being necessary owing to the change in location of the

new pier, the site being farther upstream. The covering on the tops of the booms was patched, and the connecting chains, links, and clevises were examined and repaired.

The fence along the reserve on southern side of Pond creek was repaired, several of the posts and the wire having been broken by the logs in high-water season.

Madawaska River.—At the mouth of this river, a new pier was constructed to support the retaining boom. It is 19 feet by 21 feet, standing in 14 feet of water, the height over the water being 8 feet, so that the total height of the pier is 22 feet. The front, from low water, has a batter of 4 feet in 8 feet, and is sheeted with 3-inch tamarack plank, as a safeguard against ice shoves in springtime.

Small repairs were made at Arnprior station, consisting in patching the tops of the guide booms above entrance to slide, and renewing and repairing the chains and clevises connecting the boom sections.

At High Falls, a pier in the rear of the main dam was carried away in the spring of 1913, and had to be replaced. The pier is 20 feet by 24 feet, and 14 feet high, covered on top with two courses of 2-inch plank. Defective timbers in the main dam were taken out and replaced by new ones, and the sheeting on the face was patched where found unserviceable.

At Ragged Chute, a portion of the pier dam across the old channel was rebuilt. This structure is 135 feet in length, 16 feet in width for a height of 8 feet, when it is tapered to 11 feet at top, the average height being 15½ feet.

At Chain rapids, the superstructure of the slide, which is 372 feet in length, was renewed. The posts are 12 by 12-inch by 5 feet, and the braces 4 by 8-inch by 4 feet; 120 of each being required. The sheeting is 2 inches thick, and two courses were used. Several of the cross sills were also replaced, these being 12 by 12-inch by 18 feet.

Coulonge River.—At the head of High Falls slide, a pier supporting the guide boom was rebuilt from low water. The size of the pier is 30 feet in front, 19 feet at back and 27 feet on sides, at water line, it being battered to 26½ feet in front, 17 feet at back and 17 feet on sides at top, while the height is 11½ feet over the water. Three pieces of timber were placed in the guide boom, and the top of the boom was covered with 3-inch plank laid transversely, for a distance of 56 feet. The bulkhead of slide was also renewed. At two places in the first section of slide, the foundations were repaired, and the superstructure replaced by new materials. At the first of these places the slide is 36 feet in height, and the portion repaired extended over a distance of 92 feet. At the other, the slide is 23 feet high, and the length restored was 42 feet. Near the outlet, another section 36 feet in length was treated in a similar manner. At each of these places, bents were placed to carry the longitudinal stringers, and the posts, sills, and planking were set on these. At many places, defective posts, sills, and sheeting were made good.

Black River.—One of the piers at upper end of the guide boom, supporting entrance bulkhead, was replaced. The upper portion of the cribwork dam at head of slide was also renewed. The dam extends over a distance of 293 feet, and is 8 feet in width, the part renewed being 4 feet in height. The face of the dam is solid timber, and the back open work. The bulkhead of slide was overhauled and put in an efficient state of repair. Immediately below the bulkhead, a length of 56 feet of the slide was built in the new. At head of the rock cut, another section 27 feet long was also built with new timbers, and a curve at this place was considerably eased. In the rock cut, a length of 133 feet was replaced, including the cross-sills for the flooring. Iron bars in the bottom and sides of slide, where found loose, were taken off, re-bored and again set in position. At several points where settlement had taken place, the slide was blocked to grade.

Petewawa River.—The governing dam at Second Chute station was thoroughly overhauled, as it had become much dilapidated, and would not retain enough water

for the efficient working of the slide. The water was drawn off as much as possible, and the foundations were repaired with plank and timber, and afterwards gravelled. Decayed stringers and ties were taken out and new ones were substituted, and the sheeting was patched at different places on the face of the dam. Both waste gates were rebuilt and provided with the necessary platforms and stoplogs to regulate the supply of water. One of the piers of the guide boom was renewed from the water's edge. The entrance piers of slide, 40 feet in length, were both repaired. Three courses of timber were laid on western pier, and one of the ends was built from the bottom. A course of timber was put on the eastern pier, and the hoisting gear for the stoplogs was partially renewed. A portion of the slide superstructure, 260 feet in length, was rebuilt. This is constructed of solid timber 10- by 10-inch in the sides, and 8-inch material in bottom. The sides and bottom are supported in the usual way by posts and cross-sills, the former well braced to withstand the lateral pressure. New sills were laid between the outlet piers, and the latter were repaired by the addition of two rounds of timber. At the outlet of slide, iron bars were placed to protect the timber, as the wear is unusually heavy at this point.

The retaining dam at Thompson rapids was reconstructed. The dam is situated about 2 miles below the outlet of Lake Traverse, and controls the head of water in this lake. The main portion of the dam is 225 feet in length. The southern part is of cribwork, sheeted in front with plank, while the northern portion is a flat dam. The sluice-way for logs is 22 feet in width, with a floor protected by iron straps. The waste gate is 20 feet in width. Both these openings are flanked on either side by cribwork piers which form the sides or walls. A wing dam, at southern end of main dam, and extending downstream, was also rebuilt; this is a pier 254 feet long, 8 feet wide, and 6 feet high. The dam across the northern channel is 32 feet long, 12 feet wide, and 11 feet high, and was built in the new. A pier 12 feet square and 16 feet high was provided as a support for the guide boom at entrance to sluice-way. The guide boom consists of three lengths of double and about 200 lineal feet of single timbers. Rock obstructions in the rapids below the dam were removed by blasting, to improve the channel.

In the spring of 1913, the water in the Ottawa river and its tributaries was very high, the maximum height being reached about 1st May. Shortly after this date, it commenced to fall rapidly, so much so, that some of the late "drives" from the remote districts on the tributaries had to be abandoned for the season.

The following statement, furnished by the collector of Public Works revenue, shows the volume of the business for the fiscal year:—

STATEMENT of the number of sawlogs, timber, etc., that passed through the Government slides and booms on the Ottawa river and its tributaries during the fiscal year ended 31st March, 1914.

	Pieces.
Sawlogs	3,989,283
Boom and dimension timber	73,018
Cedars	6,595
Railroad ties	37,059
Fence posts	7,441
Telephone poles	658
	4,114,054

Also 56,511½ cords of pulpwood.

The revenue accrued on the above was $24,580.38.

In submitting the foregoing report,

I have the honour to be, sir,
Your obedient servant,

R. F. H. BRUCE,
Superintending Engineer, Ottawa River Works.

STATEMENT showing Expenditures for Repairs to Ottawa River Works for Fiscal Year ended March 31, 1914.

Name of Work.	Province.	Electoral District.	Expenditure 1st April to 30th November, 1913.	Expenditure 1st December, 1913, to 31st March, 1914.	Expenditure 1st April, 1913, to 31st March, 1914.
			$ cts.	$ cts.	$ cts.
Ottawa River—					
North Chaudiere Station	Quebec	District of Wright	94 25	418 12	512 37
South Chaudiere Station	Ontario	City of Ottawa	41 88		41 88
			136 13	418 12	554 25
Tributaries of Ottawa River—					
Gatineau River	Quebec	District of Wright		1,841 83	1,841 83
Madawaska River	Ontario	South Riding County of Renfrew		2,131 54	2,131 54
Coulonge River	Quebec	County of Pontiac	1,003 47	920 59	1,924 06
Black River	Quebec	County of Pontiac	1,112 60	1,310 62	2,423 22
Petewawa River	Ontario	North Riding County Renfrew and County Nipissing	4,279 57	2,844 04	7,123 61
			6,395 64	9,048 62	15,444 26
					15,998 51

May 18, 1914.

JOS. KENT,
Accountant.

SESSIONAL PAPER No. 19

St. Maurice River Works.

(By F. X. T. Berlinguet, Superintending Engineer.)

Three Rivers, October 24, 1914.

Eugène D. Lafleur, Esq.,
Chief Engineer,
Department of Public Works,
Ottawa.

Sir,—According to instructions transmitted to me in your circular letter, I have the honour to transmit the following report on the works under my charge on the St. Maurice river for the fiscal year ended March 31, 1914.

The fluctuation of the water level on the St. Maurice at the time of the floating of logs during the commercial season of 1913 has been fairly good.

At the low-water season of 1913, after the drives had passed, the foundations of the various river structures were examined, and a commencement made of the necessary repairs. The work was continued during the winter and early spring months, in order that everything would be in readiness for the opening of navigation of 1914, and may be described as follows:—

Pointe à Trudel Booms.—On the 40th mile of the St. Maurice river, five mooring piers were put in good condition.

The Laurentide Company is building a dam at Grand Mère falls, on the 31st mile, which will be very advantageous to the working of the booms. It is high enough to back up the water for a distance of 16 miles, as far up as Mekinac, on the 50th mile, where large spaces protected by islands could be used for storing logs a year in advance, and which would be a great saving to the lumbermen who are delayed in the spring for logs, as late as the month of June; owing to these improvements, navigation from La Tuque, on the 105th mile, to Grandes Piles, on the 38th mile, could be extended as far down as Grand Mère, on the 31st mile.

As soon as the Grand Mère dam will be completed it would be necessary to alter the position of some of the booms so as not to interfere with navigation.

The water level being raised to elevation 150 feet above Grand Mère datum, it has been necessary to raise the above-mentioned five piers to elevation 160 feet.

Pointe à Madeleine Booms.—On the 39th mile, for the reasons above mentioned, four piers had to be enlarged and raised to elevation 160 feet.

St. Jacques des Piles Booms.—On the 38th mile from the outlet, seven piers were enlarged and raised to elevation 160 feet.

The widths of the booms in use at the above-mentioned places are as follows:—

1,274	lineal feet of	6-ply booms.
223	" "	5 feet 6 inches ply booms.
3,241	" "	5-ply booms.
1,573	" "	4-ply booms.
589	" "	3-ply booms.
6,900	" "	3- to 6-ply booms.

Ste. Flore Booms.—On the 34th and 35th mile, two piers measuring 40 feet by 50 feet were raised to elevation 150, to be completed with concrete heads to elevation 160, where 11,365 lineal feet of booms are in use, detailed as follows:—

100	lineal feet of	6-ply boom.
290	" "	5-ply boom.
421	" "	4-ply boom.
10,554	" "	3-ply boom.

Grand Mère Booms.—On the 33rd mile, where 12,893 lineal feet of booms were repaired and used for the assorting of logs, where the Laurentide Company's logs are floated to their private booms.

Rapides des Hêtres Booms.—On the 28th mile, stone ballast was put in a mooring pier, 2,600 lineal feet of two- and three-ply booms were put in good condition.

Pointe à Bernard.—On the 23rd and 24th mile, where 8,250 lineal feet of booms are in use, the double assorting gaps were renewed.

Shawenegan Slide.—On the 22nd mile, twenty-two concrete piers were built and a new steel log-chute was erected during the winter, and has been completed in time for the sluicing of the logs during the season of 1914.

Cap aux Corneilles Booms.—On the 3rd mile, twenty-three mooring piers were examined and put in good condition, chains were supplied and stone ballast was put in the piers where necessary.

Ile Caron.—On the 1st mile, protection work was erected on the western bank to prevent the undermining of the Government property.

Ile St. Christophe Booms.—On the 1st mile one mooring was examined and put in good condition.

The statement furnished by the collector of slide and boom dues shows that 5,760,283 logs passed through the slides, and the revenue on the above was $50,029.66.

I have the honour to be, sir,
Your obedient servant,

F. X. BERLINGUET,
Superintending Engineer, St. Maurice River Works.

Report on the Saguenay River Works.

(By P. E. Amiot, Superintending Engineer.)

The Saguenay booms are situated on the River Saguenay, about 4 miles above Chicoutimi.

During last summer, the sum of $737.16 was expended in the completion of the gaps, the channel between piers has been deepened in order to facilitate the floating of logs, boulders have been removed, and a new 2,000-pound anchor has been placed at the head of the boom.

Trent and Newcastle District.

BURLEIGH FALLS.

Burleigh falls is situated at the west end of Stony lake, about 22 miles from Peterboro. A dam and locks of the Trent canal system are located there.

For years, the department has maintained slides and booms at this point, for the use of which it derived a revenue from the lumbermen.

In 1912, timber to the value of $886.50 and drifts to the value of $27.65 were purchased. High-water conditions prevented the carrying on of the work at that time. The material was stored for future use, sundry outlay in this connection amounting to $87.45. The above $115.19 was expended from the $750 available in 1912.

An amount was provided for extensive repairs in 1913, and work was commenced on September 1, and the work was carried on and completed on November 7.

In detail, the work consisted of: totally rebuilding a rock-filled dam (gravity type) 110 feet long, maximum height 6 feet; a crib 106 feet long, 8 feet wide, 8 feet high; building a new crib 48 feet long, 8 feet wide, and 6 feet high; and making repairs to cribs and booms generally.

The total expenditure is $1,225.80.

BELOEIL STATION.

Beloeil Station, a post office in Verchères county, on the north side of the Richelieu river, with a station on the G. T. R., 21 miles northeast of Montreal. An elegant iron drawbridge, 1,200 feet long, here crosses the Richelieu. It has an express office, one store, one hotel, 1 saw-mill, 1 bank, and the works of the Hamilton Powder Company.

The Beloeil booms, placed by the department in order to help the passage of boats and barges through the G.T.R. swing bridge, over the Richelieu river, were repaired during the month of July.

One of these booms, 105 feet in length by 6 feet in width, of 12 by 12-inch timber, had to be entirely renewed, and a length of 100 feet of the other repaired.

This work was done by day labour.

BRIDGES AND ROADS.

It may be stated that, in the older provinces of the Dominion, the Federal Government has confined itself, as a rule, to take under its exclusive control and make provisions towards the construction and maintenance of important interprovincial road bridges and bridges required across waterways.

In the sparsely settled districts of the Northwest Territories, the Government of Canada has undertaken to provide for the erection and maintenance of ordinary road bridges over large streams; bridges that are urgently needed to afford uninterrupted communication through trails and highways of national importance, which neither the municipalities to be more immediately benefited by the structures nor the territorial authorities most directly concerned, could be expected to erect and maintain at their sole expense.

During the last fiscal year, works have been executed on the following:—

ONTARIO AND QUEBEC.

BRIDGES AT OTTAWA, AND ROADWAY AND BRIDGE APPROACHES BETWEEN OTTAWA AND HULL.

Ordinary Repairs.

Laurier Bridge.—The approaches to this bridge have settled considerably, especially those of the sidewalks. On the northern side of the western approach, a concrete retaining wall, 110 feet in length, 3½ feet in width at base and 2 feet at top, and of an average height of 6 feet, was built to prevent the filling from spreading. The wall also forms a support for the standards of the guardrail. The sidewalk was laid in concrete for a distance of 100 lineal feet, the width being 8 feet. The guardrail was raised and properly set to grade.

Chaudière Slide Bridge.—The roadway of this bridge was often cleaned, and the railings were kept in repair. The sandstone pavement over the fill to the north of Buchanan channel, where settlement had taken place, was removed and relaid in proper place. The pavement at the Middle street approach from Victoria island was also raised to grade. Concrete supports were provided for the iron gratings at the southern end of the bridge. In winter, the ice was cut from around the posts supporting the bridge, to guard against damage.

Union Bridge.—This bridge was cleaned frequently, and the roadway plank was patched where worn. A supply of plank was purchased to renew the flooring on the western portion of the bridge.

Hull Slide Bridge.—The masonry wall supporting the iron columns of this bridge, along the southern side of the Hull slide, was damaged by passing logs and timber, many of the stones having been dislodged, thus undermining the seats for the column. The missing portions of the wall were restored in concrete, and a frame glance was erected along the wall to prevent possible damage in future.

Roadway and Bridge Approaches between Ottawa and Hull.—This thoroughfare was cleaned from time to time as required, the pavement was taken up at different places where sunken, fine stone and sand being placed underneath the paving blocks to make up the deficiency. The sidewalk to the north of the stone dam was rebuilt for a distance of 250 feet, with a suitable guard railing to conform with the one adjoining.

In the winter months, ice and snow were removed from the sidewalks of all the bridges and causeway leading to Hull, and when these walks were in a slippery condition sand was spread over their surfaces to improve the walking. In spring, the gratings were cleaned thoroughly and gutter drains were made to carry off the surface water.

STATEMENT showing Expenditure for Repairs to Bridges at Ottawa, and Roadway and Bridge Approaches between Ottawa and Hull for Fiscal Year ended March 31, 1914.

Name of Work.	Province.	Electoral District.	Expenditure 1st April to 30th November, 1913.	Expenditure 1st December, 1913, to 31st March, 1914.	Expenditure 1st April, 1913, to 31st March, 1914.
			$ cts.	$ cts.	$ cts.
Laurier Bridge	Ontario	City of Ottawa	396 26	466 98	863 24
Chaudiere Slide Bridge	Ontario	City of Ottawa	426 65	160 05	586 70
Union Bridge	Ontario & Quebec	City of Ottawa and District of Wright	174 50	788 79	963 29
Hull Slide Bridge	Quebec	District of Wright	127 01	5 40	132 41
Roadway and Bridge Approaches between Ottawa and Hull	Ontario & Quebec	City of Ottawa and District of Wright	774 28	567 53	1,341 81
			1,898 70	1,988 75	3,887 45

May 18, 1914.

JOS. KENT,
Accountant.

CHAPLEAU.

Chapleau, a small village in Pontiac county, is located on Allumettes island, north shore of the Ottawa river. The traffic bridge crosses the Culbute channel to the mainland.

Account of the Cleveland Bridge Co., amounting to $2,800 for balance of contract price held from the previous year, was paid. Also claim for extras on substructure by Fallon Bros., amounting to $1,310.49, was settled.

The balance of the appropriation was available for the completion of the bridge approaches and the removal of the old bridge. Work was carried on from October 1 to December 9. The old bridge was completely removed except the three principal piers which were only removed to 3 feet above L.W.L. The stone from the old piers was placed as riprap to protect new piers and approach fills. A cover plate was placed over expansion joint at the north end of bridge. A two-line W.I. pipe hand-railing was erected on both sides of roadway approaches and painted. Some stone and gravel were spread on approaches.

Expenditure to March 31:—

Cleveland Bridge Co.	$2,800 00
Fallon Bros.	1,310 49
Labour	1,267 03
Materials	429 53
Total	$5,807 05

HAWKESBURY.

Hawkesbury, a town in Prescott county with a population of 4,000, is located on the Ottawa river midway between Ottawa and Montreal.

The project for an Interprovincial bridge across the Ottawa river, between Hawkesbury and Grenville, was further looked into early in the season, and the available routes reported upon May 20, 1913.

When the exact site was determined by the department, numerous borings had to be made during the summer months, and detail information secured from surveys, etc., for the right of way and bridge structures.

Mr. W. Chase Thomson, Consulting Engineer, has, since the choice of type of superstructure was made, prepared contract plans and general designs, with specifications for substructure, approaches and roadways. The contract plans and specifications for steel superstructure and reinforced concrete roadway are also well under way and nearing completion.

The project is for a high-level deck bridge and trestles, with reinforced concrete roadway, 20 feet wide, and two 4-foot 3-inch sidewalks across the Ottawa river and Grenville canal, 2,288 lineal feet; stone and earth-fill approaches, 838 feet; two roadway bridges, 45-foot span, and 1,170 lineal feet improved roadway in John street, Hawkesbury, heretofore maintained by the Hawkesbury Lumber Co.

Expenditure to March 31, $8,373.

MATAPEDIA.

Interprovincial Bridge.

Matapedia interprovincial bridge, in Bonaventure county and Restigouche county, N.B., is located on the river Restigouche, 15 miles west of Campbellton, N.B.

This bridge connects the lower part of the province of Quebec with the province of New Brunswick.

Matapedia is an important station of the Intercolonial railway, the junction of Baie des Chaleurs railway and the headquarters of the Restigouche Salmon Fishing Club.

During the fiscal year 1913-14, the approach of the bridge was completed by extending the cribwork and filling with stone. The railway crossing was also changed.

Amount expended, $999.46.

Military Road.

Matapedia military road is situated partly in Rimouski and Bonaventure counties, in the valley of Matapedia.

Matapedia road starts from Ste. Flavie, on the St. Lawrence river, and extends to Cross Point, on the Restigouche river, 110 miles from its starting point. The construction of this road began in 1857 and was completed in 1867, at a cost of $187,870.85, and was repaired and kept in good order by the Government as a military road.

After the construction of the Intercolonial, the greatest portion of this road was abandoned to the different municipalities along the road, but there remains a portion of it, from Beaurivage to Mill stream, a distance of 19 miles, where there is no municipality.

Since Confederation, the expenditure for the reconstruction was $34,048.43, and for the maintenance and repairs a sum of $13,650.09.

During the fiscal year 1913-14, some urgent repairs were made to the road and bridges.

Amount expended, $499.38.

NORTH TIMISKAMING BRIDGE.

North Timiskaming, a village in Pontiac county, Quebec, is located at the mouth of the Quinze river, 1 mile from the boundary with the province of Ontario. The country is becoming thickly settled, and the dangerous condition of the river in the spring and fall, as well as the growing traffic, would be greatly benefited by a bridge.

At its last session, Parliament appropriated $60,000 towards the construction of a bridge to be placed 2 miles below the head of lake navigation.

An examination was made in the early summer, and test piles driven for final location and type of proposed traffic bridge over the Quinze river at North Timiskaming, and a report thereon was adopted by the department. The bridge is to consist of two 240-foot through truss spans and two 75-foot plate girder spans, with reinforced concrete floor for 17½-foot roadway, and supported on three piers and two abutments of concrete on piling. The approach fills will provide for roadway on a grade of 5 per cent to the low banks and a reinforced concrete culvert where a creek on the east side has to be crossed. The through bridge will provide headroom 14½ feet, and clearance 16 feet, above regulated water surface of Lake Timiskaming; at this stage, the principal pier will be 36 feet below the water line, and will be underpinned by piles driven through some 50 feet of clay.

Properties required were acquired by authority of Order in Council, August 12, 1913. Plans and specifications for substructure of bridge were prepared and transmitted October 8; tenders were called for and a contract awarded to Messrs. Lynch, Peckman & Gorman, approximately at $45,000. Plans and specifications for steel superstructure are being prepared.

Expenditure to March 31:—

Printing and advertising	$ 408 62
Land purchase	1,450 00
Total	$1,858 62

OTTAWA RIVER (CHAT'S FALLS).

C. N. O. Railway Bridge.

The bridge under construction by the Canadian Northern Ontario railway, across the Ottawa river at Chat's falls, Quebec, in accordance with the plans approved by an Order in Council of 30th September, 1912, and as amended by Order in Council of 24th September, 1913, had, during the fiscal year, its east abutment and seven piers built, as well as the caisson placed and some concrete put in for the last remaining pier, on the 31st March, 1914. The two abutments and ten piers out of the total eleven have been completed.

PORTAGE DU FORT.

Portage du Fort, a village in Pontiac county, is located on the north shore of the Ottawa river some 60 miles above Ottawa, and is connected with the Ontario side of the river by two steel bridges over the north and south channels.

Work of replacing flooring of the south channel bridge was begun in the middle of March, and was about 50 per cent completed at the end of the month. Considerable delay was experienced, as the bridge had to be kept open for an extensive traffic. New floor stringers and new wheel-guards were placed where necessary, and a centre wheel-guard was added to divide traffic in opposite directions. Practically all lumber required to finish work was delivered in March.

Expenditure to March 31:—

Labour	$ 166 95
Materials	927 35
Total	$1,094 30

C. N. O. Railway Bridge.

The bridge under construction by the Canadian Northern Ontario railway across the Ottawa river at Portage du Fort, Quebec, in accordance with the plans approved by an Order in Council of 29th July, 1912, had its substructure completed, and the erection of steel superstructure was under way on the 31st March.

ONTARIO.

BEAR'S PASS.

Bear's Pass, District of Thunder bay and Rainy River, is a narrow neck on Rainy lake crossed by the Canadian Northern railway, mile 210·6 west of Port Arthur. The railway company wished to replace a timber trestle by a new steel structure, and filed the necessary application, plans, etc., under the Navigable Waters Protection Act. An examination was made and a report submitted suggesting certain changes to meet the requirements of navigation. The plans were amended by the company, and an order in council granting authority for the work to proceed was issued.

BLACK STURGEON RIVER.

The Black Sturgeon river, District of Thunder Bay and Rainy River, flows into lake Superior, 59 miles east of Port Arthur.

This river was crossed by the Canadian Northern railway under Order in Council, date February 12, 1912.

The work was inspected, and it had been completed as authorized.

GRAND RIVER BRIDGE.

Grand River bridge is a highway bridge connecting the east and west banks of the Grand river, at the village of York, in the county of Haldimand. It is 5 miles from Caledonia, the nearest railway station. This bridge was constructed by the Dominion Government in 1891.

Work of repair was performed between the 7th July and 29th November, and consisted of making repairs to dump boards and fence along wooden trestle approach; filling in of washout at west end of said trestle approach; renewal of about 90 per cent of the decking of trestle approach with 3-inch white oak planking, and two additional stringers; renewal of defective stringers and decking in floor of bridge spans; renewal of sills with concrete, and other minor repairs.

The performance of the above work left the bridge in good condition, but the steel work will require to be scraped and painted and slight repairs will be required to the decking and stringers during the next fiscal year.

In the execution of the above work approximately 12,300 feet, b.m., of timber, 350 pounds of iron, and 7 barrels of cement were used.

The total expenditure for the fiscal year 1913-14 is $875.

KIOSH-KOQUI LAKE.

C.N.O. Ry. Bridge Trestle.

This bridge trestle (authorized by Order in Council, September 24, 1913), is located across Kiosh-Koqui lake, in the township of Pentland, district of Nipissing, mileage 186.6 from Ottawa on the C. N. O. railway. It has been under construction during the past year, and is to be some 2,000 feet long, in maximum depth of 40 feet of water, and provides for a 50-foot opening, not less than 150 feet from shore, satisfactory to the lumbermen operating on this lake.

LATCHFORD BRIDGE (MONTREAL RIVER).

Plans and estimates were prepared and a report submitted 23rd April, 1913, for widening the proposed reinforced concrete operating bridge of Latchford dam to accommodate highway traffic across the Montreal river. A further report was submitted 22nd August, 1913.

MONTREAL RIVER (ELK LAKE).

T. & N. O. Railway Bridge.

The bridge of the Timiskaming and Northern Ontario railway across the Montreal river near Elk lake, was examined in October, 1913, and found to have been built in accordance with the plans approved by an Order in Council of 19th August, 1912.

MUSKRAT RIVER (MEATH STATION).

C. P. Railway Bridge.

This bridge is being built across the Muskrat river, where the C. P. railway propose to do away with the existing 600-foot trestle built skew to the stream some twenty years ago, and which intersects the highway bridge The grade crossing being extremely dangerous, the line is being diverted to cross the river slightly below the original location half mile downstream but normal thereto. The new bridge, to consist of an 80-foot half-deck plate girder span on concrete abutments, approved by Order in Council of 15th June, 1912. The work on the foundations and relocation has been under way during the past fiscal year.

NIPIGON RIVER.

The Nipigon river, district of Thunder Bay and Rainy River, flows into lake Superior near the town of Nipigon.

Permission had been obtained by the Canadian Northern railway to cross this river at mileage 78 east of Port Arthur, under Order in Council dated February 12, 1912.

This work was inspected and it has been completed as authorized.

RIDEAU RIVER (HOGS BACK).

C. P. Railway Bridge.

An examination was made of the Canadian Pacific Railway bridge 2·65, Prescott subdivision, across the Rideau river at Hogs Back, Ont., and it was found the bridge was reconstructed in accordance with the plans approved by an Order in Council of 28th September, 1912.

SCHREIBER.

Application was made and plans submitted by the Canadian Pacific railway under the Navigable Waters Protection Act, for proposed replacement of their bridge 9·17 Nipigon subdivision, some 8 miles west of Schreiber. An examination was made and the application approved on October 16, 1913.

STURGEON RIVER.

C. N. O. Railway Bridge.

The bridge under construction by the Canadian Northern Ontario railway across the Sturgeon river (middle crossing), district of Nipissing, Ontario, at mile 257·6 from Ottawa, has been completed in accordance with the plans as approved by Order in Council of 5th April, 1913.

C. N. O. Railway Bridge.

The bridge under construction by the Canadian Northern Ontario railway across the Sturgeon river (east crossing), district of Nipissing, Ontario, at mile 249·9 from Ottawa, has been completed in accordance with the plans approved by an Order in Council of 7th December, 1912.

MANITOBA.

DELTA.

A pile bridge was built across the channel at Delta. It consists of two approaches, each 17 feet in length, and a main bridge 152 feet in length, with a width of 10 feet.

There are ten bents of three piles each. The caps are 10 by 10-inch, the stringers 4 by 10-inch, with the exception of the 28-foot span, where they are 6 by 12-inch. The floor consists of 2 by 12-inch plank and a handrailing of 2 by 4-inch timber on both bridge and approaches.

At the centre, the clearance above water is 7 feet, the bridge sloping to the ground each way from there. The water is 15 feet deep.

The cost of this bridge was $1,600.

MINIOTA BRIDGE—ASSINIBOINE RIVER.

During August and September, plans and specifications for a steel bridge with concrete abutments were prepared by Professor E. Brydone-Jack, and sent to the department at Ottawa.

A progress payment of $750 was made for the plans and specifications. The proposed bridge is about a mile and one-quarter from Uno station on the Grand Trunk Pacific railway, and near the Birdtail Indian reserve.

Alberta.

BOW RIVER BRIDGE.

Work during the last fiscal year was confined wholly to the Bow River bridge at Banff. The work consisted of putting in a complete new deck over the four spans, and the renewal of the joists and sills under the sidewalk and roadway. The dimensions of this bridge, regarding decking, are as follows:—

Four spans of 90 feet each; width of roadway decking, 16 feet clear; width of planking on sidewalk, west side of bridge, 6 feet 6 inches.

Each of the spans is divided into six panels. The joists under the roadway number eight pieces of 3 by 12 by 16-foot panel. The decking was renewed in addition to this, in 3-inch material, both for sidewalk and roadway.

The total cost of the work, including labour and material, amounted to $1,830.62.

EDMONTON BRIDGE.

The Edmonton bridge crosses the North Saskatchewan river between Edmonton and Strathcona (now part of the city of Edmonton). It is 700 feet long between abutments, and consists of four 175-foot spans. The roadway is 17 feet wide, and there are two sidewalks, each having a width of 7 feet. The bridge is constructed with steel superstructure in the form of Pratt trusses of seven 25-foot panels each. The approximate dead load per lineal foot is 2,420 pounds. The piers and abutments are of concrete, approximately 43 feet high above the river-bed. These are erected on concrete footings deposited in caissons in which bearing piles were driven before the concrete was deposited.

This bridge was constructed in the year 1899, by this department. In 1901, an indenture was drawn up by which the Edmonton, Yukon and Pacific Railway Company (now incorporated with the Canadian Northern system) was allowed to place its track upon the bridge and to run trains across, subject to certain responsibilities with regard to accidents, improvements, etc. In November, 1908, an agreement was entered into whereby the Edmonton Radial (electric) Railway, belonging to the city of Edmonton, was allowed to place rails upon the bridge, and a street car service was inaugurated between Edmonton and Strathcona. This agreement also was subject to certain conditions whereby the Edmonton Radial Railway assumed responsibility with regard to directing of traffic and the upkeep of the bridge. At the beginning of the fiscal year 1911-12, instructions were issued by the department that the cost of all repairs to this bridge should be divided equally between the Edmonton Radial Railway and the Canadian Northern Railway Company and the Dominion Department of Public Works. Following this, an offer made by the city of Edmonton to do all the work in connection with repairs to the bridge was accepted, the expense of the same to be divided as above.

There has been returned for payment on account of repairs for the past fiscal year the sum of $1,145.92. Included in the above expenditure was the sum of $764.60, which was incurred in repairs during the fiscal year 1912-13, which could not be paid at that time.

The repairs carried out during 1913-14, consisted principally in keeping the flooring of the bridge in good connection along the railway tracks. On account of the heavy traffic over this bridge it was necessary to keep working at it all summer in order to maintain same in a safe condition. No repairs other than those of a general nature were undertaken.

It might be mentioned that this bridge does not now carry the amount of traffic it did formerly, as last August the Canadian Pacific Railway high-level bridge was opened for street car, vehicular and pedestrian traffic, thus relieving to a great extent the Government low-level bridge.

CEMENT LABORATORY.

OTTAWA, July 29, 1914.

E. D. LAFLEUR, Esq.,
Chief Engineer,
Department of Public Works.

SIR,—I have the honour to transmit herewith the annual report of the Dominion Testing Laboratory for the year ended March 31, 1914.

During the last twelve months, 10,513 samples were received by this laboratory for test purposes, which number shows an increase of 6,220, or more than 100 per cent over the same period last year. On account of lack of space, equipment and assistants, only 5,257 samples were thoroughly tested.

During the year 29,950 briquettes, 201 specific gravity, 181 chemical analysis, 3 bond tests, 40 autoclave tests, 7 rope tests, 29 compression, and 42 other tests were made.

The following table shows the increase in work and samples received in the laboratory in the last ten years:—

Year	Samples received.	Briquettes made.	Increase over 1904. Per cent.
1904	237	1,422	...
1905	756	4,536	219
1906	835	5,010	253
1907	1,246	7,476	426
1908	1,454	8,724	514
1909	1,481	8,886	525
1910	2,360	14,160	896
1911	2,920	17,520	1,133
1912	4,293	25,596	1,711
1913	10,513	29,950	2,006

Of the 10,513 samples received, all were up to the requirements of the specifications; the above results show that the cement companies have brought their products to a higher standard, thereby benefiting the whole of the Dominion, not only the Government, but all parties using cement.

The samples received were from the following:—

Engineers of the Public Works Department	5,977
Architects of the Public Works Department	4,516
Marine and Fisheries Department	6
Militia and Defence Department	2
Deputy Minister, Public Works Department	4
Railways and Canals Department	1
Private parties	7

The following table shows the number of samples of the different brands received:—

International	4,723
Canada	2,853
Belleville	1,114
Star	968
Imperial	423
Lakefield	172
Unmarked cement	69

Vulcan	29
White	18
National	18
Alpina	9
Invictor	9
Sand and gravel	91
Steel	5
Bricks	9
Ropes	3

I have the honour to be, sir,
Yours obediently,

GEO. E. PERLEY,
Director.

CONCLUSION.

During the past year, the work of this branch of the service has increased enormously, as exemplified in the foregoing report.

Last year, 1914, the expenditure amounted to $14,222,500.99, as compared with $10,177,831.45 in 1913.

As usual, the works entrusted to the officers under my control have been executed with great zeal and ability, and I take pleasure in complimenting all my assistants, including those at headquarters, for the able manner in which they have performed their duties.

EUGENE D. LAFLEUR,
Chief Engineer.

APPENDIX A

PART 4

OTTAWA RIVER STORAGE

1913-14

Department of Public Works, Canada,
Upper Ottawa Storage,
Ottawa, Ont., October 9, 1914.

E. D. Lafleur, Esq.,
Chief Engineer, Public Works Department,
Ottawa.

Sir,—I have the honour to submit a report on the Ottawa River Storage covering generally the period from April, 1912 to April, 1914.

The storage scheme had its inception many years ago in connection with the Chaudière powers at Ottawa, but was actively pushed between 1904 and 1908. The first idea was to build eight or ten dams at the outlets of various lakes. These dams were to be of wooden cribwork, like those built throughout the country by lumbermen. With more extended investigation, however, it was found that better results might be obtained by confining the work to three large lakes, Quinze-Expanse, Timiskaming, and Kipawa, each over 100 square miles in area, and into which large watersheds drained.

It was therefore decided to build concrete structures and to secure as deep storage as possible upon each of these three lakes. The surface height of these reservoirs was sharply limited by the damage to property, which was rapidly increasing in value owing to the exploitation of Cobalt and other mining areas. To avoid inundation, arrangements were made as far as possible to deepen the outlets of the lakes and thus draw off the bottom layers of the reserves. Construction began in 1909, and is now practically completed so as to be ready for use during 1915.

Quinze reservoir consists of lakes Expanse and Quinze, navigable for 60 miles, and totaling 120 square miles in area, upon which a depth of 20 feet can eventually be stored. The watershed area, tributary to this reservoir, is about 8,000 square miles.

Construction work was begun August, 1911, and the foundations were put in by day work. A contract was let to Messrs. Morrow and Beatty, May, 1912, and the rockfill and concrete sluices are now finished. It will be possible to store the autumn freshet, but damage to timber limits along the borders of the reservoir must be settled before full height can be maintained. About 23,000 acres of bush land will be affected, the cost of which is difficult to estimate, although it has been carefully gone over by timber estimators. The dam is a rock-fill over a mile in length with sixteen regulating weirs capable of passing the flood flow. About $400,000 has been expended in construction to the present date, end of September.

Timiskaming reservoir consists of the lake of that name, which is navigable for 70 miles, with an area of over 100 square miles. Upon this, 15 feet in depth of available storage is held and can easily be accumulated from the 8,000 square miles of Quinze and 11,000 square miles of local drainage.

The concrete weirs at the outlet were begun in May, 1909, the contractors being Messrs. Kirby and Stewart, who were relieved of the work in August, 1911. It was then completed directly by the department, and went into operation August, 1912. The total length of the dam is 1,600 feet, with about thirty regulating weirs, capable of discharging a flood flow of 100,000 cubic feet per second. The expenditure, including repairs due to scouring of the river bottom, and land damages, has been about $500,000 to date.

Kipawa reservoir consists of the irregularly shaped lake of that name, which is over 100 square miles in area, and upon which a depth of 15 feet of reserve water can be held.

The area from which this reservoir collects is only 2,100 square miles, which does not suffice to fill it in dry years. The lake has been held for many years by lumbermen's dams so that high water was elevation 883 and low water about elevation 875. For the storage scheme, a dam consisting of two sluice-ways and a rock-fill, about 200 feet in total length, was built across the north or Kipawa river outlet. The south, or Gordon Creek outlet construction consisted in replacing the old wooden dam by a rock-fill 800 feet long with a concrete sluice-way for passing timber.

The Kipawa dam cost $62,000 and was finished in 1911, the Gordon Creek dam cost $42,000 and was finished in 1912, both were built under contract by Messrs. Morrow and Beatty.

With a view to creating further storage, Grand Lake Victoria has been examined, and it would give a reservoir of 40 square miles with a storage depth of 15 feet. There is also Kakabonga lake, of 100 square miles, which empties westwards into the Ottawa and southwards into the Gatineau, and upon which a depth of 20 feet could be stored.

The method of conserving storage on these lakes would be similar to that followed at each of the others, which consists of a rock-fill dam with concrete piers to form stoplog weirs. To construct these at present is considered too expensive owing to the difficulty of carrying on work at such remote and inaccessible places.

Although the reservoir surfaces are raised 20 feet above low water, yet when they are drawn down 15 feet, the head of the weirs will only force through the standard supply. On this account and also owing to complications that arise in summer time with navigation interests, it is safer to count on only 15 feet of storage. All three reservoirs now completed would, on this basis, yield during five months, or 150 days of shortage, as follows:—

Quinze, 1,500 square mile feet yielding	3,000	c.f.s. for	150 days.
Timiskaming " "	3,000	"	"
Kipawa " "	3,000	"	"
Total yield	9,000	"	"

Precipitation is alone, of course, relied upon to create the storage, the ponds governed by weirs allow of feeding out the surplus snow and rain as additional quantities into the river at low periods. These occur during September and October, and during February, March, and April.

The Ottawa watershed equals the area of England and Wales, and the quantity of rain and snow falling on this area, and the manner in which it gradually reaches the river forms a study of some magnitude. The method of investigation is to obtain daily records of snow, rain and evaporation, and at the same time daily heights of the various lake areas and river slopes. The year, April 1, 1913, to April 1, 1914, has been one of small precipitation, and consequently the river flow has not been up to the average. The ground water, that is the proportion of rainfall absorbed by the swamps, has also been lacking, but the storage reservoirs kept the minimum flow at Chaudière falls, Ottawa, up to 20,000 c.f.s.

A list of the various metering points, with notes regarding them, is attached, and also tables of precipitation for wet, medium, and dry seasons.

SESSIONAL PAPER No. 19

Table showing precipitation for twenty years, each divided into spring, summer, and winter periods, together with the depth of water at foot of Rideau canal:—

Dry Winters

Index Year.	November 1 to March 31.	April.	May.	May Elevation.
1895.	9·9 inches	2·1 inches	3·9 inches	140·98 feet.
1901.	10·3 "	2·4 "	3·5 "	141·42 "
1905.	8·2 "	1·3 "	2·9 "	138·08 "
1906.	9·1 "	0·8 "	1·6 "	139·23 "
1907.	9·9 "	2·0 "	2·0 "	139·56 "
1910	9·2 "	1·4 "	2·4 "	138·21 "
1911.	8·7 "	1·9 "	2·4 "	141·22 "

Mean Winters.

1892.	11·3 inches	1·5 inches	1·7 inches	136·13 feet.
1893.	10·7 "	2·8 "	5·8 "	144·05 "
1894.	11·6 "	0·8 "	3·9 "	142·48 "
1897.	11·1 "	2·7 "	2·9 "	144·16 "
1899.	12·1 "	0·7 "	3·7 "	144·52 "
1900.	12·0 "	1·1 "	2·9 "	142·85 "
1903.	11·3 "	0·9 "	1·3 "	139·00 "
1904.	10·4 "	3·6 "	3·6 "	144·72 "
1913.	10·7 "	1·5 "	1·8 "	140·87 "

Wet Winters.

1896.	13·6 inches	1·6 inches	1·9 inches	141·15 feet.
1898.	14·0 "	0·7 "	2·8 "	137·98 "
1902.	14·2 "	1·8 "	2·4 "	139·75 "
1908.	14·5 "	1·3 "	4·0 "	145·80 "
1909.	14·0 "	2·8 "	4·5 "	145·48 "
1912.	14·2 "	2·2 "	4·7 "	140·92 "

Dry Summers.

Index Years.	June 1 to August 31.	September.	September Elevation.	October.
1907	7·6 inches	3·7 inches	131·06 feet	3·0 inches.
1908	5·4 "	1·4 "	128·54 "	1·4 "
1913	6·8 "	2·2 "	129·38 "	3·6 "

Mean Summers.

1894	9·8 inches	3·1 inches	129·23 feet	3·9 inches.
1895	8·8 "	2·9 "	130·35 "	1·0 "
1897	9·6 "	0·6 "	130·83 "	1·8 "
1898	9·1 "	3·5 "	130·79 "	4·8 "
1899	9·3 "	4·6 "	129·99 "	2·2 "
1901	10·4 "	2·5 "	128·88 "	1·9 "
1904	9·6 "	5·4 "	130·99 "	2·2 "
1905	10·4 "	3·9 "	129·99 "	2·6 "
1906	8·4 "	2·4 "	128·27 "	3·5 "
1909	9·8 "	2·4 "	132·42 "	1·4 "
1910	8·5 "	1·6 "	130·21 "	3·3 "
1911	9·5 "	3·2 "	128·96 "	2·7 "
1912	8·5 "	3·1 "	130·89 "	3·0 "

Wet Summers.

1892	11·8 inches	3·4 inches	130·42 inches	1·5 inches.
1893	13·1 "	2·5 "	130·56 "	2·1 "
1896	11·2 "	4·3 "	129·85 "	1·9 "
1900	11·0 "	4·1 "	131·84 "	1·5 "
1902	11·9 "	3·5 "	130·61 "	4·0 "
1903	12·6 "	2·7 "	131·40 "	2·0 "

A general statement of the flow measurements made at the various metering stations along the Ottawa river and tributaries shows the work done in this branch.

Quinze.—These meterings cover a range of flow from 2,800 to 25,000 c.f.s. Further meterings are required above 25,000 c.f.s. in order to complete the rating of the lower gauge at the Maples.

Kipawa River.—Meterings have been made between elevations 865·50 and 866, also between 869 and 870. This leaves a gap in the curve of 3 feet at flows varying between 600 and 3,500 c.f.s.

Montreal River.—Further meterings are required. At the only suitable gauge sites the level of the river is controlled by dams. To make it possible to arrive at the daily flow, without taking daily meterings, a gauge was placed at Gillies depot. By referring the slope between this and the Latchford gauge to the current meter measurements the daily flow can be computed.

Gordon Creek.—This stream has been metered between flows of 90 to 2,100 c.f.s. There is a very strong current at the gauge site causing fluctuations that do not always give the true discharge.

Timiskaming.—The station has been well metered only between flows of 15,000 and 20,000 c.f.s. Further meterings should be made at extreme low water and from 20,000 c.f.s. up to the high water flow.

Ottawa at Deux Rivières.—Meterings have not been made at this station since 1911. The gauge is still kept up at Klock station as it gives a fairly good idea of the run-off between lake Timiskaming and the Dumoine river.

Du Moine River.—Further meterings are required at all stages of the river. The gauge is situated 1 mile up the river and has not yet been tied into the precise levels.

Petewawa River.—Additional meterings are required at extreme low and extreme high water.

Black River.—This river has been partially rated above the village. Gauge readings are taken daily at the highway bridge. During low stages they are affected by the opening and closing of the dam.

Coulonge River.—More meterings are required from a flow of 3,000 c.f.s. up to high-water flow.

Ottawa at La Passe.—This station has been well rated from a flow of 20,000 c.f.s. down to 9,000 c.f.s. Meterings should be continued next spring in order to better define the upper part of the curve.

Bonnechere River.—It will be necessary to place a new gauge somewhere below the lower dam at Renfrew. The present gauge is useless during low-water periods owing to the filling up of the pond when the power is closed down. Weight and chain gauge being placed at a good site below the power houses.

Ottawa River at Quyon.—This station has been well rated between elevations on lake Deschenes of 190-20 and 192-80. These two elevations represent discharges of 16,000 and 46,000 c.f.s. Further meterings are required at extreme low water and at medium high, and high water.

Ottawa River at Chaudière.—This station has not proved altogether satisfactory owing to the unevenness of the river-bed and the various channels. The site now being tried below Quyon has up to the present proved much more satisfactory. The run-off from the watershed between the Quyon and the Chaudière would vary between about 80 and 2,500 c.f.s. Flows varying between these figures will in all cases be added to each discharge measurement made below the Quyon.

Rideau River.—Rating curve is incomplete. Early meterings cannot be used owing to the gauge having been removed when the highway bridge was rebuilt. The gauge had not been referred to a bench-mark.

Gatineau River.—The curve is not very well defined owing to early meterings having to be discarded. A dam was built, blocking the small channel below the Chelsea falls, thus decreasing the flow for gauge heights that previously indicated a greater run-off.

Ottawa River at Besserer's Grove.—The lowest metering gave a flow of 14,600 c.f.s. When the river level fell below elevation 127·80 the discharges were taken from the curve extended down from this metering. It is therefore necessary to make a number of meterings at the extreme low level from which to plot a more reliable curve.

Du Lievre River.—Meterings have been taken at various stages from high water down to ordinary summer level.

Rouge River.—The curve is fairly well defined, meterings being taken at all stages with the exception of extreme low water.

Ottawa River at Carillon.—Although a fair number of meterings have been made of this reach, the various curves are not yet well defined. The gauges at Grenville, Carillon, and St. Annes have all been referred to the meterings, but do not yet give

satisfactory results. I would recommend that the party now at Cedars be transferred to Carillon at the end of the present month to remain there well into the winter. During the period when the ice is taking, we have always experienced difficulty in estimating the flow. The data gathered would therefore be of considerable value.

North River.—This river is metered at the same time the Ottawa is done, in order to give the total flow at the mouth of the Ottawa river.

The measurement work done up to April 1, 1914, on the St. Lawrence river is shown in the following table:—

Date.	Total from Lake St. Francis.	Flow past Montreal Harbour.	Lanoraie.
1913.			
May 16 to 20	287,200	365,200	453,500
May 27	295,200	354,600	426,800
May 31 to June 2	295,000	354,800	428,100
June 5 to 6	276,000	326,500	391,800
June 10 to 13	296,100	338,100	394,500
June 19	275,200	312,500	363,800
June 20 to 21	282,300	318,500	368,300
June 25 to 28	282,500	312,500	356,500
July 17	303,500	320,700	352,300
July 22	323,700	340,900	372,400
July 23 to 24	301,900	319,400	351,100
July 29	298,400	313,900	343,000
July 31	320,300		
July 30, August 2 and 5	298,000	312 400	340,300
August 6	298,200	310,800	336,700
August 7	287,900	301,100	327,700
August 13	289,900	300,700	324,400
August 14 to 15	291.400	301,900	325,100
August 19	279,800	289,300	311,300
August 19 to 25	282,000	291,500	313,600
August 27 to 29	278,100	287,600	309,700
August 28	299,900	309,400	325,100
September 2 to 3	296,700	306,300	328,500
September 4	277,400	287,600	310.500
September 6	292,200	301,700	323,700
September 9	274,400	283,600	305,100
September 10	280,300	298,000	310,000
September 11	274,900	284,100	305,600
September 12	292,400	300.600	320,300
September 13	291,800	300,000	319,800
September 15	281,300	288,900	308,000
September 16	299,900	307,000	326,100
September 19	292,200	299,800	318,700
September 20	295,200	302,400	320,800
September 23	301,800	310,000	330,000
September 24	290,600	298,800	318,800
September 25	293,600	302,000	322,400
September 30 to October 1	284,000	292,800	314,000
October 6 to 7	267,300	276,800	298,000
October 8	256,500	266,000	288,100
October 10 to 11	248,300	256,700	277,100
October 17 to 18	215,000	223,000	242,900

In connection with metering, no suitable arrangements have yet been made for testing the meters at Ottawa. This is an important part of the work, as the observed speeds of currents at any point must be multiplied by large factors, increasing instrumental errors to an alarming extent. So far, temporary rating stations have been in use at Dow's lake in the summer and at Mackay's lake, Rockliffe, during the winter months.

I have the honour to be, sir,
Your obedient servant,

J. R. COUTLEE,
Engineer in Charge.

APPENDIX B

GEORGIAN BAY SHIP CANAL

CERTIFIED COPY of a Report of the Committee of the Privy Council, approved by His Royal Highness the Governor General, on the 18th March, 1914.

On a memorandum dated February 24, 1914, from the Minister of Public Works, submitting that he has had under careful consideration memorials and representations addressed to the Government by municipalities, Boards of Trade, and other public bodies throughout Canada, that increased facilities be afforded for the transportation of Canadian products to the markets of the world through all-Canadian channels, and urging that this be effected, together with the development of Canadian resources and industries incidental thereto, by the construction of a deep inland waterway providing accommodation for the large lake carriers from the Georgian bay to the port of Montreal.

The Minister states that, in the year 1904, it was decided to make a thorough survey and examine into the feasibility of such a water route by way of French river, Lake Nipissing, and the Mattawa and Ottawa rivers. This survey, which was completed in 1907, demonstrated the physical possibility of the construction of the Georgian Bay Ship Canal providing a depth of 22 feet from the Great Lakes to Montreal, the estimated cost of this work being placed at that time by the engineers at approximately, $100,000,000.

That it is considered that the project should also be made the subject of a careful and thorough inquiry from the point of view of the commercial feasibility and national advantages to be derived therefrom, and the following questions regarding the industrial and commercial aspects of the proposed undertaking should be gone into, viz:—

1. A study of the transportation problem in relation to the proposed waterway, to what extent can it help in developing the resources of the country.

2. The advantages of a large waterway from the lakes to the sea-board, open to the largest type of lake carriers; the feasibility of these carriers navigating such waterway, and the influence on the rate regulation of transport, especially upon cheaper commodities which the country produces.

3. The competition of the waterway with the railways; effect on railways, by creating new industries, on account of cheap transportation of low-grade freight that cannot be handled by rail, causing an expansion in industries, an increase to the population and a demand for higher class of freight seeking transportation by rail.

4. The probable volume of traffic available on account of the natural advantages of such waterway, which would be the shortest and deepest water route from the head of the Great Lakes to the sea-board for largest lake vessels and the probable length of the open navigation season through this waterway.

5. Traffic of the Great Lakes; how it reaches the seaboard. The percentage of Canadian traffic handled through the United States ports, and causes for this diversion.

6. Lake transportation, rates that obtain, lake and rail routes as against all-rail rates, also a comparison with an all-water route rate; also a comparison between the proposed Georgian Bay Ship Canal route and all the competing routes in existence and in course of construction, and their capacity, comparative cost of transportation per ton mile, rail, lake and rail and all water.

7. A comparison of the volume of traffic that may be handled by water as against the rail routes within the same period. Possible economic advantages of such a waterway.

8. The position of the Northwest, Fort William and Port Arthur being the objective point of all lines running through the wheat belt. How the situa-

tion at the head of the lakes would be ameliorated, would an all-water route from Fort William to the sea-board, for largest lake vessels, be the natural complement of the present water and rail routes?

9. The position of the existing and projected Gulf lines via Galveston, what their influence would be regarding diversion of traffic from the lakes and St. Lawrence route. The effect upon the movement of the traffic by the opening of the Hudson bay, and Pacific and Panama routes.

10. The conditions that exist at the Atlantic sea-board, Canadian and United States, as to handling traffic, and as to ocean and insurance rates.

11. Interprovincial trade. The facilitating of trade between the provinces. The Northwest to supply Ontario, Quebec, and the Maritime Provinces with wheat at cheaper transportation rate. Ontario and Quebec to supply in return the product of their manufacture, whilst it will perhaps be possible for Nova Scotia to supply coal to some Ontario points at a cheaper freight rate than it now costs to bring it from the United States, effecting a great saving to the country.

12. The iron industry and other mineral resources, the deep waterway as a factor in their development.

13. Pulp industry and the possibility of development.

14. The tendency to manufacture at the base of supply, the possibilities along the route of the waterway where raw material cannot be transported by rail at a low rate is available. The easy development of large water-powers at dams, for manufacturing purposes.

15. New territory opened in the Northwest, and the requirements to move the grain crop in the future to open market, the cost of transporting wheat from important centres in the Northwest to head of lakes.

16. Storage at the head of the lakes and the sea-board, extent of terminals required.

17. Markets, general statistics, synopsis of history of deep canals, their trade development.

18. Generally speaking, the commercial feasibility of the proposed waterway.

That, with this object in view, it is desirable that a Royal Commission be appointed to inquire into the various questions above mentioned, and also such other matters relating to the subject as may suggest themselves to the commission in the course of its investigations.

The Minister, therefore, recommends that a Royal Commission be appointed for the purpose above mentioned, to be composed of the following:—

W. Sandford Evans, Winnipeg, chairman.
Frank S. Meighen, Montreal, and
Edouard Gohier, Montreal.

The Minister further recommends that such commission be authorized to employ such technical and professional assistance as its members may decide.

That the duration of the commission shall be during pleasure.

The Minister also recommends that an appropriation be made out of which the Minister of Public Works will be authorized to pay expenses of all kinds, including actual travelling expenses of the commissioners, and such other expenses—including technical and clerical assistance—as may necessarily be incurred, as well as the salary at the rate of $300 per month, of a secretary to the commission, to be hereafter appointed by the Minister of Public Works.

The committee concur in the foregoing recommendation and submit the same for approval.

RODOLPHE BOUDREAU,
Clerk of the Privy Council.

PART V

REPORT ON GOVERNMENT TELEGRAPH LINES

FOR THE

FISCAL YEAR ENDED MARCH, 31 1914

Department of Public Works,
Office of the General Superintendent,
Ottawa, Ont., December 7, 1914.

R. C. Desrochers, Esq.,
Secretary, Department of Public Works.

Sir,—I beg to submit herewith my report on the Government Telegraph Service for the fiscal year ended March 31, 1914.

This report, as usual, is prefaced by a list to the present date of the land lines and cables in operation; with data of lengths, year of construction, number of offices at present established, and an estimate of the traffic handled in each instance.

The usual tabular statement giving list of offices, operating staff, etc., in the several districts are appended to the report; likewise the tariff sheets showing the rates charged for messages on the several lines.

I have the honour to be, sir,
Your obedient servant,

D. H. KEELEY,
General Superintendent.

THE GOVERNMENT TELEGRAPH SERVICE

DOMINION OF CANADA

HEAD OFFICE: DEPARTMENT OF PUBLIC WORKS, OTTAWA.

(March 31, 1914.)

EXECUTIVE.

The Hon. R. Rogers, Minister of Public Works.
J. B. Hunter, Esq., Deputy Minister of Public Works.

STAFF AT HEADQUARTERS.

D. H. Keeley, General Superintendent.
M. W. Crean, Technical Assistant to General Superintendent.
J. E. Gobeil, Technical Assistant to General Superintendent.
Miss E. D. McClosky, Secretary to General Superintendent.
Miss A. Ranger, Assistant Secretary to General Superintendent.
P. G. Burgess, Accountant Telegraph Branch.
J. E. Bray, Assistant Accountant Telegraph Branch.

GENERAL INSPECTORS.

A. B. McDonald, North Sydney, Cape Breton, lines in Nova Scotia and New Brunswick.
J. S. Macdonald, Edmonton, Alta., lines in Northwest and British Columbia south.

SUPERINTENDENCIES.

Edwin Pope, Quebec, supt., North Shore and G.N.W. traffic.
E. H. Tetu, Long Point of Mingan, dist. supt., North Shore, East Bersimis.
J. P. Pouliot, dist. supt., Quarantine line, etc., to Grosse Isle.
A. Malouin, dist. supt., West Point, Anticosti Island.
A. Le Bourdais, Grindstone, dist. supt., Magdalen Islands.
J. Dumulon, Ville Marie, P.Q., local supt., Timiskaming District.
D. C. Dawson, St. John, N.B., dist. supt., Cape Breton system.
J. B. Parker, Grand Manan, N.B., dist. supt., Bay of Fundy system.
J. McR. Selkirk, Leamington, Ont., dist. supt., Pelee Island system.
Robt. C. Macdonald, Edmonton, Alta., dist. supt., Northwest Territories.
Wm. Dee, Victoria, dist. supt., Vancouver Island lines.
W. H. Stevens, Kamloops, B.C., supt., Kamloops-Okanagan.
J. T. Phelan, Vancouver, B.C., supt., Yukon system.
H. Gilchen, Whitehorse, Y.T., dist. supt., Atlin-Boundary.
F. W. Dowling, Prince Rupert, B.C., dist supt., Atlin-Prince Rupert.
C. E. Gooding, Ashcroft, B.C., dist. supt., Ashcroft-Hazleton.

GOVERNMENT TELEGRAPH SERVICE.

Location of Lines.	Points connected.	Year.	Length of Lines.			Number of Offices.	Messages Sent.
			Land Lines.	Cables.	Total.		
			Miles Wire.	Kt's.			
Newfoundland..	Port au Basque—Cape Ray	1883	14	...	14	2	
Nova Scotia	North Sydney—Meat Cove (with loops)..	1880-02	165½	.....			
"	Across Bras d'Or Channel	1880	.....	3/4			
" ..	" St. Anns Harbour (Englishtown).	1887	...	3/4	166¾	25	
" ..	" Ingonish Harbour	1887	.....	3/4			
" ..	French River	.....	.....	.....			
" ..	Big Bras d'Or—Kempt Head	1904	20	...	20	3	
" ..	Meat Cove—St. Pauls Island	1890	.....	20	23	1	
" ..	On St. Pauls Island	1890	3	.....			
" ..	Bay St. Lawrence to Money Point	1907	8	.....	8	4	
" ..	Mabou—Meat Cove	1887-00	109	.....	109	12	
" ..	Barrington—Cap Sable	1883	16	....			
" ..	Across Bear Point Channel	1883	.....	1¼	17¾	Leased.	
" ..	" Lt. House Channel	1883	.....	4			
" ..	Mabou—Port Hawkesbury	1903	41¾	.....	73¾	7	
" ..	Port Hawkesbury—St. Peters	1903	32	.....			
" ..	St. Peters—Main-à-Dieu	1904	84¼	.....			
" ..	Main-à-Dieu—Scatari	1902-09	1	3½	131½	18	
" ..	On Scatari Island	1904	7¼	...			
" ..	Gabarus—North Sydney	1904	35½	...			
" ..	Little Bras d'Or—Kempt Head	1905	36	.....	36	6	
" ..	North Sydney—Eskasoni	1905	37	..	37	10	
" ..	Castle Bay—Grand Narrows	1908	16	.....	16		
" ..	Grand Narrows—Shenacadie	1910	8	...	8		
" ..	Leitches Creek—Steeles Crossing (loop)..	1910	28	.....	28		
" ..	Baddeck—Little Narrows	1910	19½	..	19½		
"	North Sydney—Little Bras d'Or (second wire)	1906	6	.....	6		20,948
" ..	Grand River—Enon	1907	19½	....	19½	2	
" ..	Enon—Gabarus	1909	31	....	31	2	
" ..	Strathlorne—Wycocomagh	1909	33½	..	33½	5	
" ..	N. E. Margaree—Big Intervale	1912	10	....	10	4	
" ..	S. W. Margaree—South Ainsley	1912	23	.....	23	6	
" ..	Whycocomagh—Little Narrows	1912	8½	....	8½	2	
" ..	Loop, Lake Ainsley to Hayes River	1912	3	.....	3	1	
" ..	Loch Ban—Scottsville	1912	7	.....	7		
" ..	Whycocomagh—Orangedale	1912	8	....	8	5	
" ..	S. L. Ainsley—Whycocomagh	1912	7	....	7		
" ..	North Sydney—Sydney Mines—Florence	1912	7	...	7		
" ..	Little Narrows—Washabuck	1912	12	.....	12		
" ..	Loop, Eskasoni—McAdams Lake	1912	5	....	5		
" ..	Grand Narrows—Lower Shenacadie	1912	7	.....	7		
" ..	Baddeck, Nyanza Rossville	1913	21	.....	21	2	
	Port Hood, Island Branch :						
	(Length of construction in loop.)						
" ..	On mainland at Port Hood	1907	½	...			
" ..	Port Hood—Smith's Island	1907	.....	2			
" ..	On Smiths or Inner Island	1907	4	....	13½	4	
" ..	Smiths Island to Henry Island	1907	...	3			
" ..	On Henry or Outer Island	1907	4	.....			
New Brunswick.	Chatham—Escuminac Point Sapin	1885	52¼	.....	52¼	15	1,028
	Carried forward	.....	951	31½	982½	136	21,976

SESSIONAL PAPER No. 19

GOVERNMENT TELEGRAPH SERVICE—*Continued.*

Location of Lines.	Points connected.	Year.	Length of Lines.			Number of Offices.	Messages Sent.
			Land Lines.	Cables.	Total.		
			Miles Wire.	Kt's.			
	Brought forward		951	31½	982½	136	21,976
	Bay of Fundy System :						
New Brunswick.	Eastport—Campobello	1880		1¾			
"	On mainland Eastport	1880	½				
"	On Campobello Island	1880	7½				
"	Campobello—Grand Manan	1880		7¼			
"	On Grand Manan Island	1880	25¼		45¾	12	2,340
"	Grand Harbour—Cheneys Island	1890		½			
"	On Cheneys Island	1890	¾				
"	Cheneys Island—Whitehead Island	1890					
"	Partridge Island—Fort Dufferin	1900					
"	" "	1910					
	Gannet Rock Branch :						
"	Seal Cove—Big Wood Island	1910	¼	1½			
"	On Big Wood Island	1910	1½				
"	Big Wood Island—Little Wood Island	1910		½	11¼	3	†
"	On Little Wood Island	1910	¼				
"	Little Wood Island—Gannet Rock	1910		7¼			
	Magdalen Island System :						
Quebec	Meat Cove, C.B.—Magdalen Islands	1880		55			
"	On Magdalen Island	1881-02	83½	½			
"	Grosse Isle—Brion Island	1902		11			
"	On Brion Island to Dingwalls	1902	1				
"	On Brion Dingwalls to Lt. House	1909	5		184¾	18	3,196
"	House Harbour—Pointe Basse (loop wire)	1902	8				
"	Pointe Basse—South Beach (loop wire)	1905	6				
"	Grindstone—Barachois (loop wire)	1909	6				
"	Amherst Island—Entry Island	1910	2	6¾			
	Anticosti System :						
"	Gaspé—L'Anse à Fougère	1881	28				
"	L'Anse à Fougère—Anticosti	1881		44¼	316½	9	3,588
"	On Anticosti Island	1881-90	223¼				
"	Anticosti—Long Point Mingan	1890		21			
	Chicoutimi Dist.:						
"	Bay St. Paul—Chicoutimi	1881-04	98		98	5	
"	St. Alexis—St. Catherines Bay	1904	78		78	5	
"	Murray Bay—Bay St. Paul	1904	32½		32½	2	
"	Bay St. Paul—Petite River	1904	13		13	1	
"	Chicoutimi—St. Charles	1903	31½				
"	St. Anne—Lac Claire	1903	7		46½	10	
"	St. Anne—St. Fulgence	1903	8				
"	St. Fulgence—Sacré-Cœur	1905	73½		73½	4	
"	Murray Bay—St. Catherines Bay (2 wire)	1904	53		53		
"	St. Alexis—Chicoutimi (2nd wire)	1905	14½		14½		
	Carried forward		1,758¾	191	1,949¾	205	31,100

† Included in Bay of Fundy System.

GOVERNMENT TELEGRAPH SERVICE—*Continued.*

Location of Lines.	Points connected.	Year.	Length of Lines.			Number of Officers.	Messages Sent.
			Land Lines.	Cables.	Total.		
			Miles of Wire.	Kt's.			
	Brought forward		1,758¾	191	1,949¾	205	31,100
	Chicoutimi Dist.—Con.						
Quebec	St. Charles—La Pipe	1907	30		30	4	41,556
"	La Pipe—Peribonka	1908	17		17	2	
"	Bay St. Paul—St. Placide	1908	8½		8½	1	
"	Tache—St. Louis de Nazaire Loop	1912	5		5	1	
	North Shore Line:						
"	Murray Bay—Chateau Bay (Tadousac)	1881-01	947¼		949½	69	
"	Across Saguenay River at Tadousac	1883		1¼			
"	" " " "	1909		1			
"	Chatean Bay—Belle Isle*	1901					
"	ersimis—Godbout	1904-05	114		114		
"	St. Simeon to Cap Salmon Lt. (loop wire)	1909			4	1	
"	Harrington—Harrington Island	1909	1¼	3¼	4½	1	
	Quarantine System:						
"	Quebec—L'Ange Gardien	1885	13				
"	L'Ange Gardien—Orleans Island	1885					
"	" 3 lengths	1906-09		2¼			
"	On Orleans Island	1885	29¼				
"	Orleans Island—Isle Reaux	1889		2			
"	" (2nd cable)	1910		2¼			
"	On Isle Reaux	1889	2½		80¼	11	1,656
"	Isle Reaux—Grosse Isle	1889		2			
"	" " (2nd cable)	1910		2			
"	On Grosse Isle (all told)	1885-94	3¼				
"	St. Jean—Ste. Famille (loop)	1904	11				
"	St. François—St. François Nord (looped wire)		10				
"	St. François—Baie St. Paul†	1906					
"	Crane Island to Montmagny	1905-09		5	5		
"	On Crane Island	1905	3		3	5	
"	Crane Island to Grosse Isle	1907		5	5		
"	Beauport—Laval	1909	15		15	4	1,920
"	Orleans Island Telephone System	1910	68		68	7	13,424
"	Kippewa Dam—Ville Marie	1910	33½		78½	9	1,512
"	Ville Marie—North Timiskaming	1911	45				
"	St. Isidore Branch	1912	3½		3½	1	
"	Crane Island—Goose Island	1912	10		10	2	
"	Charlesbourg Lake, Beauport—Stoneham	1913	52¼		52¼	8	1,147
	Pelee Island System:						
Ontario	Leamington—Point Pelee	1889	12				
"	Leamington Dock—Pelee Island	1901		17¼	45¾	18	981
"	On Pelee Island	1889-00	16½				
	Northwest Lines:						
Northwest	Qu'Appelle—Edmonton	1883	593½		593½	16	
"	St-Paul—Durlingville	1912	48		48	2	
"	Edmonton—Athabaska Landing	1904	98		98	2	
"	Athabaska Landing—Mirror Landing	1909	70		70	1	
	Carried forward		4,023	235	4,258	370	78,363

* This cable (Chateau Bay—Belle Isle) 22¼ knots, was withdrawn in 1909.

† This cable, 30 knots, was withdrawn in 1910.

SESSIONAL PAPER No. 19

GOVERNMENT TELEGRAPH SERVICE—*Continued.*

Location of Lines.	Points connected.	Year.	Length of Lines.			Number of Offices.	Messages Sent.
			Land Lines.	Cables.	Total.		
			Miles Wire.	Kt's.			
	Brought forward		4,023	235	4,258	370	78,363
	Northwest Lines—Concluded.						
Northwest	Mirror Landing—Peace River	1910	199		199	3	
"	Peace River—Dunvegan	1911	74		74	2	
"	Dunvegan—Lake Saskatoon	1912	76		76	2	
"	Grand Prairie City Loop	1912	16		16	1	
"	Peace River—Shaftsbury	1914	15		15	3	
"	Moosejaw—Wood Mountain	1885	107		107	4	
"	Wood Mountain—Willow Bunch	1904	39		39	2	
"	Gravelburg Loop	1910	38		38	1	
"	Leeville Loop	1912	28		28	1	
"	Saskatoon Loop	1892	28		28	1	
"	Edmonton—Indian Agency—Stony Plain	1904	32		32	5	92,148
"	Edmonton—St. Albert	1887	9		9	1	
"	St. Albert—Qui Barre—Alexandre	1902	25		25	3	
"	Duck Lake—Batoche	1902–10	9		9	2	
"	Duck Lake Indian Agency	1902	3½		3½	3	
"	Lloydminster Loop	1904–09	58		58	1	
"	Andrew Loop	1904	10		10	1	
"	Andrew—Whitford	1905	7		7	1	
"	Lamont Loop	1910	7		7	1	
"	Lipton Loop	1906	2		2	1	
"	Fort Qu'Appelle—File Hills Agency	1907	28		28	4	
"	Saddle Lake—Industrial School	1900	6½		6½	1	
"	Kamsack—Indian Agency	1907	6½		6½	2	
"	Sintaluta—Assiniboine	1913	8		8		
"	Kamsack—Indian Agency—Pelly	1910	17½		17½	4	
"	Battleford—Green Lake	1912	185		185	4	
"	Meota Loop	1912	20		20	1	
"	Grouard—Prairie River	1912	37		37	5	
British Columbia	Victoria—Banfield—Cape Beale	1891	130		130	12	
"	Branch to Wireless Station		1½		1½		
"	Victoria—Jordan River (Telephone)	1909	40		40	5	
"	Alberni—Banfield	1899	53		53	3	
"	Alberni—Clayoquot	1902	96½	1¼	97½	9	
"	Toquart—Sechart—Pranch	1907	9½		9½	1	
"	Mosquito Harbour—Tofino	1911	10½	¼	10¾	1	55,880
"	Tofino—Clayoquot Sound	1911	11½		11½	1	
"	Nanaimo—Comox—Campbell River	1893–08	118		118	9	
"	Comox—Cape Lazo	1910	6		6		
"	Parksville—Alberni	1895	30		30	1	
"	Union—Denman—Hornby	1907	23	2	25	4	
"	Nanaimo—Gabriola	1909	18¾		19	6	
"	Campbell River—Texeda Island	1910	53½	18¾	72¼	10	
"	Salt Spring Island	1902–04	62	7¾	69¾	21	5,088
"	Malahat—Saanich	1912	½	3	3½	1	
"	Chemainus—Kuper—Thetis Island	1912	7½	5	12½	4	340
"	Sydney—Sydney Island	1910	2½	2½	5	2	672
"	Powell River—Vancouver	1913	116	11	127	16	
"	Golden—Windermere	1901–02	89		89	5	3,822
"	Kamloops—Lower Nicola	1899	76		76	14	
"	Lower Nicola—Penticton—Canford	1905–11	197		197	19	
"	Vernon—Kelowna	1905	76		76	4	
"	Kelowna—Penticton	1906	46½	1½	48	5	
"	Vernon—Lumby	1907	17		17	1	
"	Kamloops—Louis Creek	1908	39		39	7	
"	Louis Creek—Mount Olie	1910	30		30	6	
"	Kamloops—Savonas	1913	26		26	5	79,872
	Carried forward		6,515	288	6,803	602	316,185

GOVERNMENT TELEGRAPH SERVICE—*Concluded.*

Location of Lines.	Points connected.	Year.	Length of Lines.			Number of Offices.	Messages Sent.
			Land Lines.	Cables.	Total.		
			Miles Wire.	Kt's.			
	Brought forward		6,515	288	6,803	602	316,185
	British Columbia Lines—Concluded.						
British Columbia	Kamloops—Barnhardtville	1911	12		12	2	
"	Vancouver—Newport	1913	41½	10	41½	3	
"	Queen Charlotte, Tow Hill	1913	109		109	1	
"	Shingle Bay—Aligard Bay	1913	7		7	13	
"	Colwood—Mechosin	1913	15		15	2	*
"	Kamloops—Grand Prairie—Vernon	1910	89		89	7	
"	Nakusp—Edgewood	1912	50		50	7	
Yukon	Ashcroft—Dawson and Boundary	1899-01	1,845			89	
"	Hazelton—Port Simpson and Aberdeen	1901-02	202½				
"	Tagish—Cariboo Crossing	1901	18				
"	150 Mile Station—Quesnelle Forks	1902	64		2,252½		
"	Ashcroft—Lillooet	1896	62				
"	Quesnelle—Barkerville	1887	61				
"	Ashcroft—Quesnelle (local wire)	1878-87	215		215		126,015
"	Hootalinqua—Livingstone Creek	1907	35		35	2	
"	Aberdeen—Prince Rupert	1907	40		40	5	
"	Kitsumkalum to Stewart	1910-11	171		171	7	
"	150 Mile House—Bella Coola	1912	329		329	17	
"	Lillooet—Pioneer Mines	1912	71		71	6	
"	Fraser Lake—Stewart Lake	1912	40		40	1	
"	Lillooet Lytton	1913	47		47	7	
	Total		10,024	288	10,312	771	442,200

* Maintained by B.C. Tel. Co.

SESSIONAL PAPER No. 19

REPORT ON THE GOVERNMENT TELEGRAPH SERVICE, 1913-14.

EXPLANATORY NOTES.

The tabular statement prefacing this report shows the total mileage, etc., of the telegraph lines operated by the Government. Lines that have been subsidized or constructed and transferred by the Government for operation by private companies are not included in this list.

The matter in the following pages comprises a statement of specific actions taken in the course of the year; and in pursuance of the plan followed last year the particulars are given in separate reports, hereto subjoined, from the District Superintendents, and will be found indicated under the several divisional headings. In any case where no particular reference is made to a line found in the above-mentioned list, the understanding intended to be conveyed is that the line has been satisfactorily operated throughout the year, without any change of conditions since last made mention of in the annual report.

NEWFOUNDLAND.

The line from Port au Basque to Cape Ray continued to be operated as heretofore under an arrangement with the Anglo-American Telegraph Company.

MARITIME PROVINCES.

Cape Breton, N.S.

The line between Main à Dieu and Louisburg, and the lines on Scatari island were converted from telegraph to telephone, the change being appreciated by the public. Extensive repairs and renewals were made on the various lines, and an increase of revenue is shown. A report (No. 1) from the District Superintendent, Mr. D. C. Dawson, is hereto appended.

St. Paul's Island.—The cable between Bay St. Lawrence and St. Paul's island, reported broken in the annual report of 1913, was repaired by the ss. *Tyrian* on April 30, since which time it has worked satisfactorily.

BAY OF FUNDY.

Cable Interruptions and Repairs.—The cable between Grand Manan and Campobello became interrupted on December 13, and was repaired by the ss. *Tyrian* on January 15, 1914.

Cable Service.—The recommendation to put down a second cable between Grand Manan and the mainland for the operation of a telegraph service was approved, and an amount was appropriated for that purpose. There have been few interruptions during the year.

A report (No. 2) from the District Superintendent, Mr. J. R. Parker, covering the operations of the system during the year ending March 31, 1914, is hereto appended.

QUEBEC.

Magdalen Islands Cable Repairs.—The cable between Meat Cove, C.B., and Old Harry became interrupted on April 20, 1913, and repaired by the ss. *Tyrian* on April 25.

The Amherst Island—Entry Island cable.—Broken by dredging operation on October 30, 1912, was repaired by the ss. *Tyrian* on May 13, 1913.

The Grosse Isle—Byron Island Cable.—Broken in November, 1911, was repaired by the ss. *Tyrian* on May 16, 1913, the services of the ship not being available in 1912.

Telephone Service.—The land lines were, in June, 1913, converted from a telegraph to a telephone system which has given satisfactory service since its inauguration.

Maintenance and Operation.—A report (No. 3) from the District Superintendent, Mr. A. Lebourdais, is hereto appended.

Anticosti Cable Repairs.—The cable between Gaspé and South West Point, interrupted in 1912, and the Mechastic Bay-Long Point cable, interrupted on January 24, 1913, were repaired by the ss. *Tyrian* on May 23 and May 27, respectively.

The land lines have worked satisfactorily throughout the year.

Maintenance and Operation of the Antigonish Land Line.—A report (No. 4) from the District Superintendent, Mr. A. Malouin, is hereto appended.

NORTH SHORE ST. LAWRENCE AND CHICOUTIMI LINES.

General repairs under the foremanship of the regular line repairers were performed on the various divisions from east and west of Bersimis. Reports Nos. 5 and 6 from Superintendent E. Pope, Quebec, and District Superintendent E. H. Tetu, Long Point of Mingan, are included in the appendix hereto.

QUARANTINE TELEGRAPH AND ORLEANS ISLE TELEPHONE SYSTEM.

Cable Repairs.—The Ange Gardien-St. Pierre telephone cable which was carried away by ice in January, 1913, was repaired in May, 1913.

The Grosse Isle-Crane Island cable, broken by ice in December, 1912, was repaired on May 29, 1913.

The St. Francois-Isle aux Reaux cable, interrupted on October 5, was repaired on October 12, 1913.

The construction of a telegraph extension from Crane island to the east end of Goose island (10 miles) was completed in September, 1913.

A report (No. 7) from Mr. J. P. Pouliot, District Superintendent, is appended.

QUEBEC COUNTY TELEPHONE SYSTEM.

Extensions of these lines were built from Charlesbourg to Lake Beauport West (9 miles) and from Martineau Mills to St. Ignace via Lake St. Charles (31 miles).

Timiskaming District Telephonic Lines.—An extension of this line was constructed from St. Isidore via Mont-Carmel to Latulipe (24 miles) under the supervision of Mr. J. E. Gobeil, of the headquarters staff, work being completed on July 19, 1913.

Berthierville-Ile du Pas Telephone Line.—An amount of $2,000 was appropriated for the construction of a telephone line to connect Berthierville with Ile Castor, St. Ignace de Loyola, and Ile du Pas, (5 miles), the work being completed in January, 1914, under the supervision of Mr. M. W. Crean, of the headquarters staff, the three aerial river crossings to be replaced by submarine cables on the opening of navigation.

ONTARIO.

The Pelee Island telephone system was operated during 1913-14 under the same conditions as in previous years. A report (No. 8) from Mr. J. McR. Selkirk, District Superintendent, Leamington, is appended hereto.

NORTHWEST, BRITISH COLUMBIA, AND THE YUKON.

The separate reports (Nos. 9 to 13) appended hereto from the respective district superintendents, fully cover the work done on these divisions in the course of the fiscal year.

Under appropriations for 1913-14 there has been completed or in course of construction, as stated in the reports of the district superintendents, a number of new lines and branches as follows:

SASKATCHEWAN AND ALBERTA.

Grande Prairie to Lake Saskatoon.
Assiniboia Reserve to Sintaluta.
Athabaska Landing to Fort McMurray.
North Battleford to Isle LaCrosse.

BRITISH COLUMBIA.

Kamloops to Savonas.
Alberni, extension Friendly Cove.
Powell River Line Branch to Newport.
Campbell River to Rock Bay.
North Vancouver to Newport.
Aligard Bay to Suguash.
St. James Island to Saanichton.

YUKON SYSTEM

Queen Charlotte Islands.
Lillooet to Lytton.

TELEGRAPH SERVICE GENERALLY.

Cableship "Tyrian."—The following cables were repaired by the ss. *Tyrian* during the year: Old Harry-Meat Cove, Bay St. Lawrence-St. Paul's Island, Main à Dieu-Scatari Island, Amherst Island-Entry Island, Grosse Isle-Bryon Island, Gaspé-Anticosti, Long Point-Anticosti, Grand Manan-Campobello.

A statement of the vessel's operations during the year is given in the accompanying report (No. 14) from Mr. A. B. McDonald, General Inspector of the Maritime Province lines, and electrician of the ss. *Tyrian*.

Telegraph Systems of the Dominion.—As a matter of general interest, pursuant to the statement submitted last year, the latest figures to hand showing the extent of telegraph lines in operation in the Dominion are given hereunder:—

Canada.	Length of Lines in Miles.				Length of Conductors in Miles.				No. of Offices
	Aerial.	Underground.	Submarine.	Total.	Aerial.	Underground.	Submarine.	Total.	
1913-14.									
Great North Western Telegraph Co	9,584	7	13	9,604	29,864	192	78	30,134	
Canadian Pacific Telegraph	13,824	18	103	13,945	102,857	1,201	251	104,309	1,532
Western Union Telegraph Co									
Government Telegraph service					9,993		288	10,281	771
Grand Trunk Pacific Telegraph	10,859¾	1	¼	10,860					120

SESSIONAL PAPER No. 19

REVENUE AND EXPENDITURE.

The revenue and expenditure for each of the Government lines in the several districts hereinbefore mentioned, are given in the following table:—

1913–14.	Expenditure.	Revenue.
	$	$
Lower St. Lawrence and Maritime Provinces—		
Anticosti lines	12,756 94	3,144 67
Gaspe		52 72
Bay of Fundy	2,311 05	845 13
Cape Breton	34,360 18	4,059 01
Cape Ray (subsidy)	250 00	...
Crane Island—Goose Island	112 61	...
Escuminac	1,346 00	308 69
Father Point Agency	1,000 00	...
Ile aux Coudres (subsidy)	200 00	...
Laval telephone	136 41	97 48
Magdalen Islands	4,305 20	1,311 76
North Shore, east of Bersimis	30,437 47	5,429 86
North Shore, west of Bersimis	19,658 48	1,419 66
Orleans telephone	6,582 56	622 37
Quarantine system		271 41
Stoneham telephone	368 94	214 79
Prince Edward Island and Mainland	13,893 32	...
Cable ship *Tyrian*—		
Maintenance and repairs	58,901 84	...
Generally—		
Gulf and Maritime Provinces	8,666 01	...
Timiskaming District—		
Telephone line	1,974 60	321 30
Ontario—		
Pelee Island telephone	519 94	148 55
North West Territories Lines	86,986 96	35,499 82
British Columbia—		
Golden—Windermere	3,445 14	2,748 55
Chemainus—Kuper—Thetis Island		22 35
Malahat—Saanich Island		94 70
Salt Spring Island	60,100 35	655 42
Sydney—Sydney Island		43 82
Vancouver Island		16,323 45
Nakusp—Edgewood	771 47	21,592 74
Kamloops—Okanagan	30,561 74	
British Columbia generally	5,093 07	...
Yukon—		
Ashcroft—Dawson	232,984 93	157,874 02
Telegraphic service generally	6,030 08	...
Total	623,755 29	253,112 27

DEPARTMENTAL TELEPHONE SERVICE.

Up to the date of this report (April 1, 1914) the telephone connections with the central office of the Bell Telephone Company at Ottawa, listed as chargeable to the special appropriation, numbered 638, the annual charge for which amounts to $28,756. The connections are distributed amongst the several departments, as hereunder:—

Department.	Offices.	Residences.	Annual Charge.
			$
Agriculture	18	9	1,130
Auditor General	11	1	550
Census	2		115
Civil Service Commission	4	3	327
Conservation Commission	4	1	285
Customs	16	5	845
Dominion Police	14	4	703
Exchequer Court	2	1	145
External Affairs	4	1	233
Finance	11	2	530
Governor General's (Including P.B.X.)	9	2	886
House of Commons	18	1	780
Interior	78	8	3,660
Inland Revenue	12	5	520
Indian Affairs	12	1	705
Justice	12	10	915
Labour	5	3	385
Marine and Fisheries and Naval	41	13	2,174
Mines	20		1,188
Militia and Defence	52	9	2,726
Mounted Police	5	1	235
Parliamentary Library	1	2	120
Post Office	33	5	1 560
Privy Council	9	5	455
Public Works	67	15	125
Railways and Canals	16	10	3,546
Secretary of State	9	4	1,090
Senate	11	1	568
Stationery and Printing	2	7	488
Trade and Commerce	7	4	1,272
	505	133	28,756

APPENDED TABLES.

The usual tabular statements of the lines and offices, staff, etc., of the telegraph service, following hereupon, will be found to contain whatever additions or changes have been made up to March 31, 1914.

D. H. KEELEY,
General Superintendent.

GOVERNMENT TELEGRAPH SERVICE.

NEWFOUNDLAND TELEGRAPH SERVICE.

No.	Stations.	Intermediate Distance.	Agents and Operators.	Memo.
1	Port au Basque	0	50 00 or commission	N.B.—The commission is 25 per cent upon all business to and from the office; said commission guaranteed not to be less than at the rate of $50 per annum.
2	Cape Ray Lighthouse	14	50 00 "	
	Totals	14	100 00	

N.B.—The above short line is constructed in connection with the Signal Service, and connects at Port au Basque with the land line system of the Anglo-American Telegraph Company.

GOVERNMENT TELEGRAPH SERVICE.

ANTICOSTI TELEGRAPH SYSTEM.

No.	Stations.	Intermediate Distance.	Agents and Operators.	Salaries per Annum.	Date of Appointment.	Memo.
		Miles.		$ cts.		
1	Fox Bay	0				Closed Aug. 5, 1909.
2	Heath Point	2	C. Hubert	200 00	Aug. 1, 1900	For local agency. Cable removed.
3	South Point Lighthouse	32½	E. Leprise	200 00	July 1, 1903	Increased to $200 Aug. 1, 1912.
4	Shallop Creek	17½	B. Bradley	600 00	July 7, 1881	Increased to $600 Aug. 1, 1912.
5	Salt Lake	52½	Jos. Bourget, gen. repair.	600 00	July 17, 1906	Increased to $600, Aug. 1, 1912.
			A. Boudreau, operator	600 00	May 26, 1913	Plus $1 per day when on duty as general repair.
6	Southwest Pt. Lighthouse	15	A. Lemieux	600 00	July 1, 1901	Increased to $600 Aug. 1, 1912.
			L. Lemieux	300 00	July 1, 1908	Increased to $300 Aug. 1, 1912.
	Jupiter River	7				
	Otter River	17½				
	Becsie River	22				
	Cape Eagle (Ellis Bay)	10	Jas. Duguay	25% commission	June 20, 1906	25% commission.
	West Point Lighthouse	9	A. Malouin, dist. supt.	520 00	Aug. 1, 1900	Increased to $520 Aug. 1, 1912.
			A. Malouin, operator	200 00	Aug. 10, 1881	Increased to $200 Aug. 1, 1912.
			Loz. Malouin, sub. opr.	600 00		Increased to $600 Aug. 1. 1912.
8	English Bay	3	F. Cabot	600 00	July 1, 1882	Increased to $600 Aug. 1, 1912.
			H. Malouin, gen. repairer	600 00	Sept. 10, 1909	From Mechastic Bay to South West Point. Increased to $600 Aug. 1, 1912.
	Mechastic Bay (cable landing).	14½				
	Total	223½		5,620 00		

Southwest Point connects with L'Anse à Fougère, Gaspé, by cable 41¼ knots; and from Mechastic Bay connection is made with Long Point of Mingan by cable 21 knots

0	L'Anse à Fonchère		Thos. Dupuis	17 00		Special allowance for the cable terminus. A testing station only.
1	Gaspé Basin	28	J. J. Annett	660 00	Oct. 16, 1881	Transfer office. Connection with G.N.W. telegraph system. Increased to $660 Jan. 1. 1908.
		28		677 00		

1	Amherst	0	Miss J. Shea	62 00 or commission	Oct. 1, 1882	The Commission is 25 per cent on all business to and from the office in each instance; said commission guaranteed to be not less than at the rate of $50 per annum.
	To loop	4½				
2	Aurigny (on loop)	2¼	L. P. Gaudet	50 00 "		
3	Amherst Lighthouse	2				
	To main line	4½	Wm. Reneau, repairer	180 00 "	June 9, 1908	Salary increased to $180, July 1, 1911.
	To cable	2¼	Wm. Cormier	50 00 "	June 11, 1881	
	Cable stretch	6½				
4	Etang du Nord village	1½	J. G. Binet, gen. rep	500 00 "	Dec. 1, 1900	Plus $1 per day when absent on duty.
			Mrs. A. Binet	100 00 "	Dec. 1, 1881	
5	Etang du Nord Lighthouse (on loop)	1½	N. Arsenault	50 00 "	Sept. 1, 1901	Two wire loop line.
	To main line	1½				
6	Grindstone	7	W. Leslie	Commission 25 p.c	May 20, 1897	
7	Grindstone West	1	A. LeBourdais, dis. supt.	900 00 "	Aug. 17, 1880	Plus $1 per day when absent on duty. The salary was $720 per annum prior to July 1, 1908.
	To cable (on loop)	¼				
	Cable stretch (on loop)	½	J. J. LeBourdais	700 00 "	May 25, 1904	Salary increased to $700, Nov. 1, 1913.
8	House Harbour (on loop)	2¼	Camille Delaney	50 00 or commission	June 1, 1888	
9	Pointe Basse (on loop)	3	H. Arseneau	50 00 "	Aug. 1, 1902	
10	South Beach (on loop)	3				
	To main line (wire)	8½	F. Chevrier	50 00 "	July 1, 1905	
	To main cable	½				
	To loop	2¼				
11	Cap Verte (on loop)	¾	Mrs. G. Cyr	50 00 "	June 22, 1909	
	To main line	¾				
12	Wolfe Island	12				
13	Grosse Isle	11¼	N. Clarke	420 00 and commission	June 1, 1888	For repeating station. Prior to Dec. 1, 1902, the allowance was $200 and commission for local agency.
			J. Quinn	240 00 "	Dec. 1, 1902	
14	Old Harry	9	L. V. Clarke	50 00 or "	Mar. 8, 1907	
15	Grand Entry	5¾	Mrs. F. Atkins	50 00 and "	Feb. 18, 1882	
			S. Clarke, repairer	180 00 "	April 1, 1912	Plus $1.50 per day for labour and $1 per day horse hire when on line work.
16	Grand Entry Point		Tim. Larade	Commission 25 p.c	March 4, 1913	
	CABLE CONNECTIONS.					
	Grosse Isle	0				
	Old Harry (wire only)	9	(Cable landing)			
	Cable to Meat Cove, Cape Breton	55	(See Meat Cove Line)			
	Grosse Isle	0				
	Cable to Bryon Island	11				
17	Bryon Island	1	M. Dingwall	150 00 or commission	Jan. 1, 1903	Two wire loop line from terminal hut for Grosse Isle cable.
18	Bryon Lighthouse	3½	P. Chevrier	50 00 "		
	Amherst	0				
	Cable to Entry Island	6¾				
19	Entry Island Lighthouse	2	E. Chenell	15 00		
	Total	182¼		3,947 00		

Total mileage, Magdalen Islands system; Land wires, 101½; Cables, 80¼; Pole Line, 83⅜.

5 GEORGE V., A. 1915

GOVERNMENT TELEGRAPH

NORTH SYDNEY—

No.	Offices.	Intermediate Distances. Wire.	Embracing Pole Line.	Embracing Cables.	Agents and Operators.
		Miles.	Miles.	Miles.	
1	Meat Cove*	0			Mrs. H. L. McEachern
2	Capsticks	3			
	To loop	1	7		
3	Bay St. Lawrence (loopwire)	½			V. Therriault. Mrs. V. Therriault, Asst.
	Money Point (Branch line)	8	8		See accompanying table
4	Aspy Bay	4½	4½		R. C. Zwicker
	Cape North Island	5	5		N. A. McDonald
	To loop	1	1		
6	Dingwell (loopwire)	5½			Joe O'Brien
	To loop	10	10		
7	Neils Harbour (loopwire)	2½			Arch. McLean
8	Ingonish	9	9		J. E. McLeod
9	South Ingonish	10½	10½		Mrs. M. C. Williams
10	Ingonish Ferry (¼ mile cable included)	2¼	2	¼	Mrs. M. A. McKinnon
11	Wreck Cove	9	9		Miss Mary Morrison
12	French River	5	5	¼	John McDonald
13	Breton Cove	2	2		D. B. McLeod
14	Indian Brook	7	7		C. A. McInnes
	To loop	2	2		
15	Murray (on loop)	8			
16	North River Bridge (on loop)	2			D. J. Morrison
	To main line	10	10		
17	Englishtown (¼ mile cable included)	4	3¾	¼	J. D. McAskill
18	Eel Brook	2	2		Capt. N. Smith
19	South Gut (on loop)	3	3		Rachel Morrison
20	Baddeck (on loop)	13			D. Dunlop
	To Englishtown	18	18		
21	Kellys Cove (New Campbellton)	12	12		Miss A. Morrison
22	Big Bras d'Or (½ mile cable included)	2½	2	½	D. Livingston
23	Little Bras d'Or (350 ft. cable included)	8	8		M. Richards

*Meat Cove station connects with the Magdalen Islands system by cable to Old Harry Head, 55 knots,

SESSIONAL PAPER No. 19

SERVICE—*Continued.*

MEAT COVE SECTION.

Salaries per annum.	Date of Appointment.	Memo.
$ cts.		
50 00 or commission*	Sept. 1, 1897	*Where not otherwise stated the commission is 25 p.c. of the tolls for the Government line on all business to and from the office in each instance; said commission guaranteed to be not less than at the rate of $50 per annum.
50 00 "	Closed October.	
720 00	May 1, 1902	Cable station at Bay St. Lawrence in place of Meat Cove since September 1, 1906.
420 00	" 1, 1902	
.....	.....	
50 00 or commission	May 1, 1913	
50 00 "	" 13, 1904	
50 00 "	Nov. 1, 1907	
50 00 "	Feb. 1, 1912	
50 00 "	Jan. 1, 1913	
50 00 "	Jan. 11, 1910	Formerly in charge of Mr. Geo. Brewer, resigned.
50 00 "	Oct. 1, 1903	
50 00 "	May 18, 1908	
50 00 "	April 1, 1899	
25 p.c. commission	July 19, 1907	
50 00 or commission	June 1, 1913	
.....	.....	Closed during winter of 1909-10.
50 00 or commission	Oct. 5, 1909	
120 00 and commission and 25 p.c. R. & Cks.	Mar. 28, 1912	Mr. W. Bingham, deceased, Jan. 8, 1912. Switching point for Baddeck line.
25 p.c. R. & Cks.	Feb. 21, 1914	
50 00 or commission	Sept. 1, 1904	
150 00 and 25 p.c. R.& Cks.	Oct. 11. 1913	Former agent, L. M. Anderson.
.....	.....	This loop to Baddeck starts from and returns to Englishtown.
50 00 or commission	Dec. 2, 1909	
100 00 "	Jan. 1, 1889	Increase from $50 to $100 since November 1, 1904.
50 00 "	Dec. 1, 1912	
2,310 00		

d Bay St. Lawrence with St. Paul's Island by a cable of 20 knots. The latter is operated with telephones.

5 GEORGE V., A. 1915

DOMINION TELEGRAPH

NORTH SYDNEY—

No.	Offices.	Intermediate Distances. Wire.	Embracing Pole line.	Embracing Cable.	Agents and Operators.
		Miles.	Miles.	Miles.	Brought forward..
	Meat Cove line—*Con.*				
24	North Sydney	4½	4½		W. U. Tel. Co.
	Instructor				Miss B. Bingham, Englishtown
	General Inspector				A. B. McDonald, North Sydney
	District Superintendent for all lines in Cape Breton				D. C. Dawson, St. John, N.B.
	Total	177¾	140¼	1	
	Repairers' Sections.				
	General—				
	Meat Cove—Big Bras d'Or	162¾	125⅝	½	J. G. Dunlop, Baddeck
	Big Bras d'Or—North Sydney	15	14½	½	Jos. Logue, North Sydney
	Local—				
	Meat Cove—Money Point and Aspy Bay	20	19½		Pat. Capstick
	Aspy Bay—Neils Harbour	24	16		M. McCaskell
	Neils Harbour—Ingonish Ferry	21¾	21½	¼	Rupert Curtis
	Ingonish Ferry—Englishtown	29	28¾	¼	N. M. McLeod
	Baddeck Loop Line	36	18		D. McAuley
	Murray Loop Line	20	10		J. Smith
	Englishtown—Big Bras d'Or	14½	14	½	H. Murdoch Campbell
	Big Bras d'Or—North Sydney	12½	12½		Duncan McRae
	Money Point Branch.				
1	Bay St. Lawrence	0			V. Therriault
2	Bay St. Lawrence Beach	1½	1½		J. O'Brien
3	Cape North Light (Money Point)	5½	5½		Norman McLeod
	Cape North Fog Alarm (Money Point)	1	1		Stanley Hackett
		8	8		(Included in the mileage.)
	St. Paul's Branch.				
	Bay St. Lawrence	0			
	St. Paul's Island (Inc. 20 Kts. cable)	23	3	20	J. Campbell

SESSIONAL PAPER No. 19

SERVICE—*Continued.*

MEAT COVE SECTION—*Continued.*

Salaries per Annum.	Date of Appointment.	Memo.
$ cts.		
2,310 00		
Commission only.	....	The commission is 50 p.c. on local business and 25 p.c. on through messages; and covers supervision of line and office accommodation at North Sydney.
600 00	Nov. 1. 1902.	Salary increased to $600, Aug. 1st., 1911.
1,500 00	May 9, 1905.	Increase to $1,500 from April 1st, 1909.
720 00	Jan. 24, 1892.	Allowance of $300 per year in addition for office rent, &c. Mr. McDonald accompanies the ss. *Tyrian* as electrician in connection with the cable-laying and repairing. Latest adjustment of allowance dates from July 1, 1907. The C. B. lines are operated in conjunction with the Western Union Telegraph.
5,130 00		
540 00 per annum. .	Dec. 31, 1912.	Increased from $480, March 1st, 1911.
(See Eskasoni line, &c.).	....	Horse hire allowed in addition since Dec. 1, 1909.
80 00 per annum. .	Dec. 31. 1912.	NOTE.—The rates of allowance are as adjusted in June, 1910.
90 00 " ..	Prior to June 1910.	In reckoning the repair sections, loops (2 wire lines) are taken as equivalent to 50 p.c. additional pole line. Thus the Murray loop, 20 miles of wire and 10 miles of poles, is equivalent to 15 miles of pole lines.
90 00 " .	Jan. 1, 1912	
100 00 " ..	"	
100 00 " ..	Prior to June 1910.	
60 00 " ..	"	
60 00 " .	"	
60 00 " .	June 1, 1910.	
1,180 00		
Accommodation.	Dec. 10, 1907.	This line was established and is being operated by telephone in the interest of the Signal Service.
"	"	
"	June 1, 1909.	
(of the Meat Cove, North Sydney section.)		
50 00.....	Oct. 1, 1890.	

GOVERNMENT TELEGRAPH SERVICE—*Continued*

NORTH SYDNEY—MEAT COVE SECTION—*Concluded.*

No.	Stations.	Intermediate Distance.	Agents and Operators.	Salaries per Annum.	Date of Appointment.	Memo.
		Miles.		$ cts.		
	Repairers' Sections—Con.					
	Baddeck Loop Line		D. McAuley	100 00 per annum	Prior to June, 1910	
	Murray Loop Line		Philip McLean	60 00 "	Sept. 15, 1913	
	Englishtown Big Bras d'Or		Murdoch Campbell	60 00 "	Prior to June, 1910	
	Big Bras d'Or - North Sydney		Duncan McRae	60 00 "	June 1, 1910	
				280 00		
	Money Point Branch.					
1	Bay St. Lawrence		V. Therriault	Accommodation	Dec. 10, 1907	This line was established and is being operated by telephone in the interest of the Signal Service.
2	Bay St. Lawrence Beach		J. O'Brien	"	Dec. 10, 1907	
3	Cape North Light (Money Point)		Norman McLeod	"	Dec. 10, 1907	
4	Cape North Fog Alarm (Money Point)		Stanley Hackett	"	June 1, 1909	
	Total					

CAPE BRETON : NORTH SYDNEY, BOULARDERIE AND ESKASONI SECTIONS.

Boularderie Line.

North Sydney.

	Little Bras d'Or (MC. pol's)	1½	(See Meat Cove Line)			
1	Alder Point (loop line)	5	Miss M. Plank	50 00 or commission	Nov. 18, 1912	The commission is 50 p.c. of the Govt. line tolls in each instance and is guaranteed to amount to not less than $50 per annum.
2	Groves Point (1 mi. M.C. poles)	3	Rod. Campbell	50 00 "	Dec. 18, 1912	
3	Hillside	4	Mrs. Annabelle McKenzie	50 00 "	Feb. 1, 1907	
4	Boularderie West	4	John McIntyre	50 00 "	Jan. 1, 1907	
		20½		200 00 "		

5	S. S. Boularderie	3	Donald McRae	50 00	"	Jan. 1, 1907	
6	Pointe Clear	4	Mrs. M. McLeod	50 00	"	Dec 1, 1906	
7	Upper Kempt Head	7	Mrs. Murdock McKenzie	50 00	"	Oct. 6, 1904	
8	Ross Ferry	6½	Mrs. J. F. McKenzie	50 00	"	Oct. 1, 1911	
9	Boularderie Centre	6	Mrs. J. B. McKenzie	50 00	"	Oct. 6, 1904	
	Big Bras d'Or	7½	(See Meat Cove line)				
	Total miles wire	54½	Pole line 51.	450 00			
	Repairers' Sections.						
	Alder Point—Little Bras d'Or	5	John T. Tobin	50 00	"	Oct. 1, 1912	
	Big Bras d'Or - Upper Kempt Head	20	J. A. C. McKenzie	50 00	"	Jan 1, 1907	
	Little Bras d'Or — Upper Kempt Head	24	M. McLeod	50 00	"	July 12, 1909	
	On Meat Cove poles	5½					
	General repairer		Jos. Logue	(See below)			
	Total	54½		150 00			
	Eskasoni Line.						
	North Sydney						
1	French Vale (5¾ on Gabarus poles)	11	John J. McLean	50 00 or commission		Mar. 25, 1907	The commission is 25 p.c. of the Govt. line tolls in each instance and is guaranteed to amount to not less than $50 per annum.
2	Gillis Lake	5	Peter McLean	50 00	"	July. 13, 1913	
3	East Bay	4	Miss M. L. McNeil	50 00	"	Aug. 1, 1913, re-opened.	
4	North Side, East Bay	6	James J. Gillis	50 00	"	Jan. 15, 1907	
5	Eskasoni	5	Miss Sadie McMillan	50 00	"	Dec. 6, 1907	
6	Castle Bay	6	Miss C. McInnis	50 00	"	Aug. 18, 1912	
7	Benacadie Pond	5	J. N. McNeil	50 00	"	Mar. 20, 1909	
8	Benacadie	5	Hugh Farrell	50 00	"	Mar. 20, 1909	
9	Pipers's Cove	2	M. D. McNeil	50 00	"	Mar. 20, 1909	
10	Grand Narrows	4	J. J. McNeil	50 00	"	May 1, 1910	Previously in charge of Daniel McNeil.
	Total miles of wire	53	Pole line 47¼.	500 00			
	Repairers' Sections.						
	On Meat Cove poles	5¾	A. G. McLean, McLeanville.	50 00 per annum		June 1, 1907	
	From Meat Cove Line to Gillis Lake	10¼					
	From Gillis Lake to Eskasoni (Castle Bay)	21	Duncan Gillis, North Side, East Bay.	50 00	"	June 1, 1907	
		37		100 00			

GOVERNMENT TELEGRAPH SERVICE—*Continued.*

CAPE BRETON—NORTH SYDNEY, BOULARDERIE AND ESKASONI SECTIONS—*Continued.*

No.	Stations.	Intermediate Distance.	Agents and Operators.	Salaries per Annum.	Date of Appointment.	Memo.
	Repairers' Sections—Con.	Miles.		$ cts.		
	From Castle Bay to Grand Narrows	16	J. L. McDonald, Grand Narrows	50 00 per annum	June 10, 1909	
	Total	53		150 00		
	General Repairer.					
	Boularderie line	54½	Jos. Logue, North Sydney	540 00 per annum	Jan. 1, 1906	Horse hire allowed in addition.
	Eskasoni line	53				
	Gabarus line, North Sydney—Leitche's Creek	5¾				
	M at Cove line: North Sydney—Big Bras d'Or	15				
	Total	128¼				
	BAY ST. LAWRENCE—HAWKESBURY SECTION.					
	Bay St. Lawrence	0	(See North Sydney line).			
1	Meat Cove (2nd wire)	7½	" "			
2	Cape St. Lawrence	4				
	Half way	1½	Mrs. C. Jamieson	50 00 or commission	Jan. 1, 1904	The commission is 25 p. c. on all business to and from the office in each instance: said commission guaranteed to be not less than at the rate of $50 per annum.
	Poulets Cove	5½				
3	Pleasant Bay	8	Mrs. G. P. McIntosh	50 00 "	Sept. 1, 1907	
	Barren	10				
4	Cheticamp (Eastern Harbour)	10	M. S. Aucoin		April 30, 1912	50 p. c. Receipts and cheques without guarantee.
5	Grand Etang	8				Closed in March, 1905.
6	Margaree Harbour	8	A. B. C. McLean	120 00 without com'n.	Oct. 20, 1896	Allowance 50 p. c. Receipts and cheques government line prior to May, 1910.
7	Margaree Forks	8	Sarah McDougall	50 00 or commission	Sept. 10, 1908	
8	N.E Margaree (loop wire)	10	Mrs. J. D. Ross	50 00 "	Feb. 1, 1898	
		80¼		320 00		

9	S. W. Margaree	4	Mrs. M. Collins	50 00	"	Jan. 1, 1912	
	To loop	12						
10	Inverness (loop wire)	8	Mrs. G. F. McLean	360 00	without com'n.	April 1, 1912	Plus $12 per annum for battery care.
11	Strathlorne (Willow B'nk)	3	Miss Rosa McLean	180 00	and commission	Nov. 1, 1908	
12	Mabou	9	Mrs. M. McDonald	120 00	without com'n.	April 1, 1887	
13	Port Hood	10	D. J. McDonald	50 00	or commission	July 1, 1903	
14	Smith's Id. (on loop) 1 mi. cable included	3¼	Miss E. L. Smith	50 00	"	Nov. 1, 1907	
15	Henry Id. (on loop) 1½ miles cable included	3½	Miss C. McLennan	50 00	"	Nov. 8, 1907	
	To Port Hood, 2½ miles cable included	6¾					
16	Judique	10	Miss M. C. McDonald	50 00	"	Jan. 1, 1912	
17	Craignish (Craigmore)	8	Allan Cameron	50 00	"	Nov. 1, 1903	
18	Port Hastings	10	Mrs. A. Petrie	50 00	"	Aug. 2, 1912	
19	Hawkesbury	3¾	Miss E. McDonald	240 00	without com'n.	Nov. 1, 1903	
	Total	171½		1,570 00			
	Miles of wire, 166½; miles of cable, 5; miles of pole line, 146							
	Wycocomagh Branch Line							
	Strathlorne (Willow B'nk)	0						
1	McCormick (Loch Ban)	2¼	J. B. McCormick	50 00	or commission	Mar. 4, 1910	Repeating office, $15 per month, plus $1 per month for battery care from May 1, 1910 (C. 972).
	To loop	6						
2	Hays River Loop	1¼	H. R. Beaton	50 00	"	July 8, 1912	
3	West Side Lake	2¾	P. M. McInnes	50 00	"	Mar. 4, 1910	
	To main line	2¾						
4	Brook Village	6	Miss Stella Jamieson	50 00	"	April 26, 1912	
5	Skye Glen	4	Mrs. J. A. Austin	25 00	"	Opened Sept. 12, 1913	
6	Wycocomagh	8½	Angus McLeod	50 00	"	Jan. 31, 1911	
	Total miles of wire	33½	Pole line, 29½	250 00			
	Repairers' Sections.							
	General—							
	Meat Cove—Inverness	104½	P. A. Doyle, Inverness	480 00	per annum	Feb. 1, 1912	Horse hire allowed in addition to salary.
	Inverness-Hawkesbury	67¾	J. F. McMillan, Port Hastings	480 00	"	May 17, 1910	Prior to March 1, 1911. Salary $35 per month
	Wycocomagh Line	32¼					
	Local—							
	Bay St. Lawrence—Meat Cove	7¼	(See North Sydney Line)					
	Meat Cove—Half-Way Shanty	5½	R. Fraser	40 00	"	May 20, 1903	
	Half-Way Shanty—Poulets Cove		A. Fraser	30 00	"	Sept. 1, 1912	

GOVERNMENT TELEGRAPH SERVICE—*Continued.*

BAY ST. LAWRENCE- HAWKESBURY SECTION—*Continued.*

No.	Stations.	Intermediate Distance	Agents and Operators.	Salaries per Annum.	Date of Appointment.	Memo.
	Repairers' Section—Con.	Miles.		$ cts.		
	Poulets Cove—Pleasant Bay	8	K. Fraser	40 00 per annum	May 20, 1903	
	Pleasant Bay—Barren	10	E. J. Timmens	40 00 "	Mar. 16, 1901	
	Barren—Cheticamp	10	L. A. Poirier	80 00 "	May 15, 1912	Mr. J. A. Chaisson, former repairer, resigned on February 15, 1912.
	Cheticamp—Grand Etang	8	M. A. Bondreau	40 00 "	Apr. 15, 1913	
	Grand Etang—Margaree H	8	H. K. McLean	25 00 "	July 1, 1905	
	Margaree H.—S. W. Margaree and N. E. Margaree loop	22	J. J. Miller	50 00 "	Mar. 16, 1912	Mr. A. McFarlane, deceased, January 31, 1912.
	S. W. Margaree—Strathlorne	23	J. D. McFarlane	40 00 "	June 4, 1902	
	Strathlorne—Mabou	9	L. G. McDougall	40 00 "	Nov. 3, 1902	
	Mabou and Judique	20	Angus J. McDonald	50 00 "	Sept. 1, 1912	
	Judique and Port Hawkesbury	21 3/4	J. N. McIsaac	50 00 "	Aug. 1, 1904	Of this section (see list) 5 miles is submarine cable; the land line portions covering but 4½ miles of 2-wire line for the loop.
	Pt. Hood Islands	13½	Ambroise Smith	20 00 "	Aug. 1, 1908	
	Total	171½		1,505 00		

CAPE BRETON—HAWKESBURY—SCATARIE ISLAND SECTION.

	Hawkesbury	0	(See Bay St. Lawrence line)			
1	River Bourgeois	26	K. F. Fougere	50 00 or commission	August. 30, 1913	The commission is 25 p.c. of the Government line tolls, and is guaranteed to amount to not less than $50 per annum. Where 50 p.c. commission is paid there is no guarantee as to amount.
2	St. Peters	6	Miss C. McKenzie	100 00 "	June 30, 1912	Main battery at St. Peters.
3	Rockdale	4	F. W. Lafford	Commission (25% only)	April 26, 1913	
	To loop	2 3/4				
4	Lower Lardoise (loop wire)	¼	Mrs. E. Finlayson	50 00 or commission	May 11, 1910	
5	Grand River	7	Miss E. A. Finlayson	120 00 and "	June 1, 1903	Repeating office. Allowance $50 and commission prior to April 1, 1912.
6	L'Archevêque	6	W. Kempt	50 00 "	June 1, 1912	
7	St. Esprit (Lafranboise intervale)	7	Mrs. J. D. Morrison	50 00 "	Sept. 1, 1906	
		59¼		420 00		

8	Fourchie (Fourchu)	13	Mary C. McLean	50 00 or commission	Nov.	1, 1913	
	To loop	16					
9	Gabarus (loop wire)	3	Miss. C. Grant	360 without "	Jan.	16, 1904	Repeating office. Automatic repeaters for North Sydney line. $3 per month in winter for attending fire. Rent allowance $75 per annum.
10	Louisburg	11	Wesley Townsend	50 00 or "	Feb.	1, 1904	
11	Big Lorraine	3	M. P. Dowd	Accommodation office	Jan.	15, 1913	
12	Little Lorraine	4	John Gallant	25% commission	June	1, 1912	
13	Baleine	2	Henry Leahy	25% "	July	1, 1913	
14	Main à Dieu	4	Mrs. Jas. McDougall	25% "	Feb.	4, 1912	Main battery at Main-à-Dieu.
	To Landing	1					
15	Scauarie Island W. Cable	3¼	E. E. Pope	50 00 or "	Aug.	15, 1904	
16	Scatarie Island East	7¾	Miss. T. Nearing	50 00 "	May	20, 1912	$8 per annum for care of main battery.
	Total	126¾		980 00			

Miles of wire, 123½; miles of cable, 3¼; miles of pole line, 121¾.

	Grand River — Gabarus Line.						
	Grand River	0	(See Hawkesbury line).				
	To loop	7					
1	Grand River Falls (loop wire)	3	Mrs. E. D. McKillop	50 00 or commission	Dec.	20, 1907	
2	Loch Lomond	5½	F. McDonald	50 00 "	Feb.	7, 1913	
3	Enon	4	A. D. Morrison	50 00 "	Mar.	21, 1912	
	Salmon River	16					
	Victoria Bridge	8	Mrs. A. McKinnon	50 00 "			
4	Gabarus (North Sydney line poles, 2½ miles)	5	(See Hawkesbury line)				
	Total	48½	Pole line, 44½	200 00			
	N. Sydney—Gabarus Line						
	North Sydney	0	(See Meat Cove line)				This line between North Sydney and Gabarus, with out any intermediate offices prior to June, 1910. has been in operation since December 11, 1903.
1	Leitches Creek	3½	J. D. McCormack	50 00 or commission	Feb.	28, 1913	
2	Ball's Creek	5½	D. A. McCormick	Commission (25% only	June	1, 1910	
3	Marion Bridge	17½	Austin Morrison	50 00 or commission	Aug.	2, 1912	
4	Gabarus (Hawkesbury Pole line, 3 miles)	12	(See Hawkesbury line)				
	Total	38½	Pole line, 35½	100 00			
	Repairers' Sections.						
	Local— Grand River to Enon.	19½	H. Urquhart, Grand River	50 00 per annum	June	10 1909	

GOVERNMENT TELEGRAPH SERVICE—*Continued.*

CAPE BRETON — HAWKESBURY — SCATARIE ISLAND SECTION— *Continued.*

No.	Stations.	Intermediate Distance.	Agents and Operators.	Salaries per Annum.	Date of Appointment.	Memo.
	Repairer's Sections—Con.	Miles.		$ cts.		
	Grand River to Fourchu.	26	D. McKillop, Grand River.....	50 00 per annum....	June 10, 1909.....	
	General—					
	Hawkesbury to Gabarus.	89¾	M. McRae, St. Peters...	480 00 "	Feb. 1, 1912.....	Horse hire allowed in addition since December 1, 1909. Salary $35 per m. prior to Mar. 1, 1911.
	Gabarus to Leitches Cr'k	·33				
	Gabarus to Scatarie Id. E	33½	D. S. Hooper, Louisburg	540 00 " ..	July 21, 1912.. .	Horse hire allowed in addition.
	Gabarus to Enon. ...	29				
				1,120 00		

New Lines—Baddeck—Nyanza, 6¼ miles: Nyanza—Little Narrows, 13¾ miles—19½ miles.

No.	Stations.	Intermediate Distance.	Agents.	Allowance.	Date of Appointment.
		Miles.			
1	Chatham,	.....	Miss J. Sivewright	$ 50 per annum	April 1, 1914.
		.....	M. Ramsay, repairer	600 "	Aug. 25, 1913.
2	Lower Napan	8¼	Wallace Campbell	25 p.c. receipts	Nov. 1, 1913.
3	Point au Carr	5	E. H. Russel	25 " "	" 1, 1913.
4	Victoria	3	Jas. MacDonald	25 " "	" 1, 1913.
5	Hexham	2	M. J. Macdougall	$ 50 per annum	July 1, 1904.
6	Bayside	3	Jos. Williston	25 p.c. receipts	Nov. 1, 1913.
7	Bay du Vin	2	S. B. Williston	25 " "	" 1, 1913.
8	Hardwicke	7	M. Bremner	$ 50 per annum	Aug. 1, 1891.
9	Eel River	2	Valentine Gibbs	25 p.c. receipts	Nov. 1, 1913.
10	Bay St. Anne	2	S. J. & H. Lavoie	25 " "	" 1, 1913
11	Escuminac	3	D. Lewis	$ 50 per annum	Sept. 1, 1885.
12	Point Escuminac	5	K. R. McLennan	$ 50 per annum	Nov. 1, 1893.
13	Point Sapin	9	W. S. Loggie & Co.	25 p.c. receipts	" 1, 1913
14	Point Sapin	1	M. Lavoie	25 " "	" 1, 1913.
	Total	52¼		$200	

GOVERNMENT TELEGRAPG SERVICE.—*Continued.*

NOVA SCOTIA TELEGRAPH SYSTEM.

Cape Sable Section.

No.	Stations.	Intermediate Distance.	Agents and Operators.	Salaries per Annum.	Date of Appointment.	Memo.
1	Barrington	0				This line has been leased to the Barrington Telephone Company from August 12, 1897. The lease is terminable at any time.
2	Newelton (including 1½ knots cable)	11				
3	Cape Sable Island lighthouse (including ¼ mile cable)	6¾				
		17¾				

East Coast Section.

N. B.—In connection with the Signal Service, a land line, 208 miles in length, was erected in 1881, between Canso and Halifax, for a bonus of $16,000, and is maintained and operated by the Western Union Telegraph Company, without further cost to the Government.

GOVERNMENT TELEGRAPH SERVICE—*Continued.*

BAY OF FUNDY, N.B., TELEGRAPH SYSTEM.

Grand Manan and Campobello Islands.

No.	Stations.	Intermediate Distance.	Agents and Operators.	Salaries per Annum.	Date of Appointment.	Memo.
						The commission of 25 p. c. on all Government line business to and from the office and commission guaranteed not to be less than at the rate of $50 per annum. When 50 p. c. commission is paid there is no guarantee as to amount.
	Grand Manan—			$ cts.		
1	Long Eddy Cable Hut to Flaggs Cove	3				Mrs. C. C. Seely, deceased, April 4, 1912.
	"		J. R. Parker, Dist.-Supt.	540 00	May 14, 1912	Rent $100 per annum. Fuel, about $50.
	"		A. Gilmour, repairer	60 00	Dec. 1, 1894.	
2	Castalia	2½	Geo. E. Dalzell	25 p.c. commission	June 1, 1898.	
3	Woodswards Cove	3½	W. A. Fraser	50 " "	Feb. 28, 1893.	
4	Grand Harbour	2	I. L. Newton	75 00 or commission.	April 1, 1887	$25 per annum included for repeating White Head Branch. Seal Cove also $25 *re* Gannet Rock Line.
5	Seal Cove	4½	J. A. Ingersoll	75 00 "	Sept. 22, 1899.	
6	"	¼	Mrs. Robert Fraser	25 00 "	Jan. 1, 1906.	
7	Deep Cove	2	C. Dalzell	25 p. c. "	June, 1913.	
8	Southern Head	3¼	T. Foster	25 " "	Dec. 1, 1910	Southern Head office is now operated by telephone from Seal Cove.
	Branch Lines.					
	Grand Harbour—					
9	Cheney's Island, ½ knot cable	4¾	S. E. Russell	25 " "	Feb. 1, 1891.	
10	White Head Island, ¾ knot cable	1½	Mrs. H. Leary	50 00 "	July 1, 1910.	
	Cable Long Eddy to Herring Cove	10		850 00		
		37¼				

GOVERNMENT TELEGRAPH SERVICE—*Continued.*

BAY OF FUNDY, N.B., TELEGRAPH SYSTEM—*Continued.*

GRAND MANAN AND CAMPOBELLO ISLANDS—*Continued.*

No.	Stations.	Intermediate Distance.	Agents and Operators.	Salaries per Annum.	Date of Appointment.	Memo.
	Campobello.	Miles.		$ cts.		
1	Herring Cove Cable Hut to Welch Pool	4¾	E. G. Mitchell	210 00 and commission.	May 1, 1905	Rent, $60 per annum. Fuel, about $30.
	Cable across channel	1¾	Wellington Parker, lineman	2 00 per day		Employed occasionally.
12	Eastport, Me., U.S.A.	½	Miss M. E. Hurley	200 00	June 30, 1913	
	Totals	44¾		1,260 00		
	Gannet Rock Line.					
	Seal Cove	0		(See above)		This line is operated in the interest of the Dept. of Marine and Fisheries. Tariff to Grand Manan 15 & 1. Tariff to Campobello and Eastport 25 & 2.
13	Wood Island (cable)	1½	P. Green	25 p.c. commission	Nov. 7, 1910	
14	Little Wood Isld. (cable ½)	2¾	T. Ingalls	Accommodation	" 7, 1910	
15	Gannet Rock (cable)	7¼	Agt. M. & F.	"	" 7, 1910	
16	Partridge Island, Fort Dufferin (cable ¾)				1900	
	Partridge Island, Fort Dufferin (cable ¾)				1910	
	Total	11	(9¾ knots cable, 1¾ miles land line.)			

CHICOUTIMI AND NORTH OF ST. LAWRENCE TELEGRAPH SYSTEM.

CHICOUTIMI—TADOUSSAC SECTION.

1	Chicoutimi	0	J. D. Villeneuve, insp.	780 00	April 1, 1906	J. P. Rivard, resigned.
			T. Villeneuve, operator	660 00	" 1, 1907	
			J. Dubé, operator	540 00	June 1, 1912	
			A. Blais, messenger	120 00	" 1, 1912	
			M. Desbiens, cleaner	72 00	Aug. 1, 1906	
			J. Fortin, repairer	426 00	June 1, 1897	
	Ste. Anne	2½	Miss A. Gauthier, op'r.	50 00	Feb. 1, 1909	
			P. Gauthier, repairer	350 00	" 1, 1904	
	St. Fulgence	8	E. L. J. Tremblay	50 00	Jan. 1, 1904	

4	Lac Laurent	8	S. Gagnon, operator	50 00	April 1, 1906	
			J. Brisson, repairer	360 00	June 1, 1906	
5	Descente des Femmes	9	Aug. Villeneuve, op'r.	50 00	April 1, 1906	
6	Ste. Marguerite Depot	34	E. Simard, operator	50 00	Aug. 1, 1909	
7	Ste. Marguerite	2	Alex. Savard, op'r.	50 00	Mar. 15, 1912	
8	Sacré Cœur	8	Miss L. Maltais, op'r.	50 00	April 1, 1906	
			H. Grável, repairer	360 00	" 1, 1906	
9	Tadoussac West	11½	J. Desmeules, agent	25 p.c. commission	" 18, 1907	
10	Tadoussac	1	Eugène Caron, agent			See North Shore line.
		84		4,012 00		

CHICOUTIMI—PERIBONKA SECTION.

1	Chicoutimi	0	(See above.)			
2	Ste. Anne	2½	" "			
	To loop	5½				
3	Shipshaw North, loop wire	4	Jos. Noel, operator	50 00	Nov. 1, 1913	
4	Shipshaw	1	Miss M. Dufour, operat'r	50 00	" 1, 1907	
5	St. Leonard	4	Geo. Gagnon, operator	50 00	Sept. 1, 1903	
	To loop	2				
6	St. Ambroise, loop wire	8	A. Simard, operator	50 00	June 1, 1905	
7	St. Charles Borromée	4½	B. Bouchard. "	50 00	Sept. 1, 1903	
8	Taché	7	Jean Fradette "	50 00	Jan. 1, 1908	
9	St. Louis de Nazaire, loop	2½	D. Blackburn.	50 00	Sept. 23, 1912	
	To loop	4½				
10	St. Joseph d'Alma, loop wire	6	Elie Gagné, operator	50 00	Jan. 1, 1908	
			Gédéon Verreault, rep.	360 00	Mar. 1, 1909	
11	St Cœur de Marie	6	Alf. Rousseau, operator	50 00	Jan. 1, 1908	
12	St. Henri de Taillon	6½	P. Boivin "	50 00	May 1, 1913	
13	Honfleur	8	Charles Lindsay "	50 00	Jan. 1, 1909	
14	Peribonka	9	Mrs. E. Niquette "	50 00	" 1, 1909	
		81		960 00		

CHICOUTIMI—LAC CLAIR SECTION.

1	Chicoutimi	0	(See above.)			
2	Ste. Anne	2½	" "			
3	Range 6	3				
4	Lac Charles	3	L. Boulaine	50 00	Nov. 1, 1904	
5	Lac Clair	4				Closed Dec. 12, 1912.
		12½		50 00		

GOVERNMENT TELEGRAPH SERVICE—*Continued.*

MURRAY BAY—BAIE ST. PAUL SECTION.

No.	Stations.	Intermediate Distance.	Agents and Operators.	Salaries per Annum.	Date of Appointment.	Memo.
		Miles.		$ cts.		
1	Murray Bay	0	Mrs. F. Vincent			See North Shore section.
2	Guay	5½	S. Beaudreault, operator	50 00	July 1, 1913	
3	St. Agnes	4½	J. Pilote "	50 00	" 1, 1913	
4	St. Hilarion	5	N. Colombe "	50 00	Sept. 1, 1909	
5	St. Urbain	8½	J. B. Simard "			See Chicoutimi section.
			A. Gauthier, repairer			" "
6	Baie St. Paul	9	F. Boivin, agent			" "
		32½		150 00		

BAIE ST. PAUL—PETITE RIVIÈRE BRANCH.

1	Bay St. Paul	0	F. Boivin			See Baie St. Paul, Chicoutimi section.
2	Petite Rivière (St. François).	13	L. J. Bouchard	50 00	Mar. 31, 1914	Payment at Baie St. Paul, $25 per year and $12 for battery care for operation of this branch to Petite Rivière.
		13		50 00		

BAIE ST. PAUL—ST. PLACIDE BRANCH.

1	Baie St. Paul	0	F. Boivin			See Baie St. Paul, Chicoutimi section.
2	St. Placide	8½	D. Simard	50 00	May 1, 1909	
		8½		50 00		

CHICOUTIMI AND NORTH SHORE OF ST. LAWRENCE TELEGRAPH SYSTEM.

Baie St. Paul—Chicoutimi Section.

1	Baie St. Paul		F. Boivin, agent	420 00 per annum† .. 25 p.c. commission	April	1, 1885	Increase from $360, Sept. 1, 1909. *The commission on business is 25 per cent of the Government tolls of the line; the amount guaranteed to be not less than $50 per annum.
2	St. Urbain	9	J. B. Simard, agent	50 00 or commission			
			A. Gauthier, repairer	360 00 per annum	July	1, 1912	Increase from $270, July 1, 1909.
3	La Galette	37	Toussaint Girard	150 00 or commission	Aug.	1, 1913	Salary increased to $150 per annum, June 1, 1907. Plus $25 per year for operating branch line to L'Anse St. Jean.
4	Ferland	27½					Ferland office closed, July 1, 1911.
5	St. Alexis	10	Mrs. D. Simard	75 00 or commission	Nov.	1, 1899	
6	St. Alphonse de Bagotville	3	Mrs. C. Levesque	150 00 per annum	June	1, 1906	A. Gauthier's division includes the branch line to L'Anse St. Jean.
7	Chicoutimi	11½					
		98		1,205 00			†Salary increased to $360 per annum, June 1, 1907.
	Branch Line.						
	St. Alexis	0	Mrs. D. Simard	75 00	Jan.	1, 1912	P. V. Lavoie resigned Oct. 1, 1911.
8	St. Felix d'Otis	10	A. Gaudreault	50 00	Nov.	1, 1907	
9	L'Anse St. Jean	30	Eris Degagné, repairer	425 00	Sept.	1, 1903	
10	Petite Saguenay	8	M. Tremblay	50 00	Feb.	1, 1905	
11	Anse Cheval	6					(This office has been closed since April 30, 1904).
12	St. Etienne	7					
	St. Catherine Bay	17	G. Boulienne (see North Shore W. B. Line)				
		78		600 00			
	Total	176		1,805 00			

North Shore (West Bersimis).

1	Murray Bay	0	Mrs. F. Vincent, operator	50 00 or commission	April	1, 1885	Plus $25 per year, and $12 for battery care for operation of branch to Guay.
2	Cap à l'Aigle	4	Miss S. Bergeron, operat.	50 00 "	June	1, 1905	
3	St. Fidèle	6	R. Dallaire, operator	50 00 "	April	1, 1912	
4	Port au Persil	7	A. Villeneuve, repairer	420 00 "	Feb.	1, 1913	
			Thos. McLaren, operator	50 00	May	1, 1912	
5	Cap Saumon Light (Loop from St. Siméon)	2	Delph. Bouchard, operat.	50 00 or commission	April	1, 1910	
6	St. Siméon	4	Jos. Morin	50 00 "	Aug.	1, 1912	
7	Baie des Rochers	12	F. Bouchard, operator	50 00 "	Sept.	1, 1912	
8	St. Catherines Bay	18	G. Boulianne, repairer	420 00	Nov.	—, 1886	Salary increased to $420 March 1, 1912.
			Mde. D. Boulianne, oper.	240 00			

GOVERNMENT TELEGRAPH SERVICE—*Continued.*

CHICOUTIMI AND NORTH SHORE OF ST LAWRENCE TELEGRAPH—*Continued.*

North Shore (West of Bersimis)—*Continued.*

No.	Stations.	Intermediate Distance.	Agents and Operators.	Salaries per Annum.	Date of Appointment.	Memo.
		Miles.		$ cts.		
9	Tadoussac (1½ knot cable).	1¾	J. E. Caron, operator...	360 00	Nov. 1, 1888 ...	
10	Bergeronnes	10	Mde. M. Savard, operat.	50 00 or commission	April —, 1885....	
11	Bon Désir	5	Mde. E. Gauthier, oper..	50 00 "	Aug. 1, 1904 ..	
12	Escoumains	12	J. H. Topping, operator.	50 00 "	Aug. 1, 1885....	
13	Baie des Bacons	8	P. Bouchard, operator...		May 6, 1902....	Commission 25 per cent without guarantee.
14	Sault au Mouton	6	C. E. Nolet, operator...	50 00 or commission	Nov. 1, 1906....	
15	Mille Vaches	2	Mde. L. Puize, operator.	50 00 "	Aug. 1, 1907....	
16	Portneuf	11½	Leandre Bouchard, oper.	50 00 "	July 1, 1890....	
			E. Courbron, repairer...	420 00	April 1, 1888....	
17	Hamilton Cove	1				Closed.
18	Sault au Cochon	7				Closed Sept. 30, 1896.
19	Bersimis West	31	Mrs. F. Miller, operator.	50 00 or commission		
			E. Pope, Dist. Supt....	2,400 00	April 1, 1885 ...	Including general accounting, and supervision of stores at Quebec.
	Total	147¾		4,960 00		

*Note.—In the estimates, the maintenance of the Chicoutimi and North Shore line is provided under head of North Shore Line. They are operated conjointly.

North Shore (East of Bersimis).

1	Bersimis East	5	A. Maloney, agent	550 00	Sept. 21, 1896...	
			Mrs. A. Maloney, asst. opr	200 00	July 1, 1906....	Repeating office and 2 main batteries.
			Jos. Gagnon, repairer...	420 00	Aug. 12, 1906....	Plus 50 cents per day when absent on duty.
2	Point aux Outardes	29	Miss G. Ross, operator.	50 00 or commission	Jan. 1, 1910....	
			D. Malouin, repairer...	420 00	June 14, 1907....	Plus 50 cents per day when absent on duty.
3	Point Paradis	18				
4	Manicouagan	14	P. Martel and his son...	25 p.c. commission...	Sept. 26, 1910....	
5	Mistassini	22	W. Montreuil, operator lineman	420 00	Oct. 23, 1908....	Plus 50 cents per day when absent on duty.
6	River Godbout	26	N. A. Comeau	50 00 or commission	Oct. 15, 1885....	

7	River Godbout West	½	N. A. Comeau, repairer.	450 00	"	July 1, 1912	
8	Point des Monts	18½	Victor Faffard	50 00	"	Dec. 28, 1883	
9	Trinity Bay West	5½	Jos. Poulin	50 00	"	May 16, 1884	
10	Trinity Bay East	2½	A. Bilodeau	25 p.c. commission		May 1, 1889	
11	Caribou Island	7	Jos. Chouinard	25 "	"	July 22, 1911	
12	Egg Island Light	8½	Mrs. E Chouinard	Accommodation		July 22, 1911	No commission paid. Telephone only with Pentecost office.
	Pointe aux Anglais	2		25 p.c. commission		1895	Cable from Egg Island.
13	Pentecost	6½	Jos. Picard	310 00 per annum		Sept. 20, 1911	Main battery.
14	May Islands	9	A. Label	25 p.c. commission		Sept. 15, 1913	
15	Ste. Marguerite	38½	A. Therriault	180 per annum		July 1, 1888	Also as line repairer for 40 miles from Hall to Rock Rivers.
16	Clark City	5	North Shore Power, Railway and Navigation Company	25 p.c. commission		April 17, 1903	
17	Seven Islands	17¾	P. E. Vignault, agent	180 00 and 25 p.c. com.		Jan. 2, 1884	Also see to small repairs when trouble between Hall and Moisie Rivers.
	"		P. C. Vignault, gnl. rep.	540 00		Jan. 12, 1912	Plus 50 cents per day when absent on duty.
18	Moisie West	14½	Mrs. Chicoine, operator	50 00 or commission		June 1, 1906	
19	Moisie East	1	Holliday Bros	50 00			In operation during fishing season
20	Pigou	28	Peter Wright, repairer	112 00		Oct. 1, 1902	
			Mrs. P. Wright, operator	100 00		Oct. 1, 1902	
21	Rivière aux Graines	29	Miss A. Blaney, operator	50 00		Oct. 6, 1910	Agt. M. Langlois, $12 per year for office rent.
22	Sheldrake	15	Mrs. A. Girard, operator	50 00		Dec. 1, 1904	Agt. A. Girard, $12 per year for office rent.
23	Thunder River	6½	Mrs. H. Cody, operator.	50 00		Feb 1, 1890	$12 per month for care of main battery and $12 per year for office rent.
24	Magpie	14	Geo. Poirier, operator	50 00		Sept. 17, 1905	Agt. G. Poirier, $12 per year for office rent.
25	St. John River	9	Ben. Chambers, operator	50 00		Oct. 1, 1899	Agt. B. Chambers, $12 per year for office rent.
26	Long Point of Mingan	10	E. H. Tetu, Dist. Supt.	1,080 00		Nov. 1, 1891	
			Mrs. E. H. Tetu, op'r.	300 00		Nov. 1, 1903	Repeating office for Anticosti cable in operation since Sept. 1, 1891 (3 main batteries), repeaters.
			J. V. Guay, agent.	500 00		Nov 1, 1910	
			Mrs. Guay, asst.	180 00			
27	Mingan	7	Mrs. C. Maloney, op'r.	100 00			Salary increased to $100 per annum. March 31, 1907.
28	Point Esquimaux	24	Mrs. E. Cyr, operator	240 00		Sept. 1, 1897	
			E. Cyr, repairer	500 00		Nov. 2, 1902	Main battery. Plus 50 cents per day when absent on duty. Extra allowance at Esquimaux Point Telegraph, $48 a year for office rent ; $40 a year for firewood ; $24 a year for storage ; 25 p.c. commission.
29	Betchouan	20	A. Desjardins, o'r and rep	212 00		July 22, 1913	At Pt. Esquimaux, Govt. Tel. supply agent Alfred Landry, from Betchouan eastward, salary $60 per year.
30	Piastre Bay	23	Mrs. J. Beetz, operator	100 00		Sept. 18, 1902	
			S. Tanguay, repairer	112 00		Sept. 18, 1902	
31	Watichou	15	Mrs. C. Bourque, op'r.	100 00		Dec. 1, 1903	
			John Bourque, repairer	112 00		Dec. 1, 1903	
32	Aguanus	21¾	Mrs. Galant, operator	100 00		Sept. 3, 1902	
			S Galant, repairer	112 00		Sept. 3, 1902	

GOVERNMENT TELEGRAPH SERVICE—*Continued.*

CHICOUTIMI AND NORTH SHORE OF ST. LAWRENCE TELEGRAPH SYSTEM—*Continued.*

NORTH SHORE (East of Bersimis)—*Continued.*

No.	Stations.	Intermediate Distance.	Agents and Operators.	Salaries per Annum.	Date of Appointment.	Memo.
		Miles.		$ cts.		
33	Natashquan	21	W. Vignault, opr.	50 p.c. commission	Oct. 20, 1911	
			C. Vignault, repairer	112 00	Sept. 5, 1902	Main battery, $12 per year.
34	Kegaska	33	Miss Anderson, opr.	100 00	Sept. 6, 1902	
			Geo. Anderson, repairer	112 00	Sept. 6, 1902	
35	Masquaro	18	J. L. Osborne, insp.	500 00	Nov. 6, 1910	Plus 50 cents per day when absent on duty.
			Mrs. Jennis, operator	100 00	April 1, 1906	
			Wm. Foreman, repairer	112 00	June 1, 1903	
36	Romaine	25	Mrs. A. Guillemette, opr.	100 00	Sept. 17, 1902	
			M. Blais, repairer	112 00	Sept. 17, 1902	
37	Wolf Bay	24	Mrs. R. Jones, operator	100 00	Nov. 26, 1902	
			R. Jones, repairer	150 00	Nov. 26, 1902	
38	Point au Maurier	24	Miss P. Galibois, opr.	100 00	Sept. 19, 1902	
			J. Galibois, repairer	112 00	Sept. 19, 1902	
39	Harrington	20	Mrs. Jones, operator	125 00	Sept. 20, 1902	Tel. allowance $25 per year for repeating messages with Harrington Island since June 15, 1909.
			J. Jones, repairer	112 00	Sept. 20, 1902	
40	Whale Head	17	Amédée Vignault, operator and repairer	212 00		
41	Mutton Bay	20	Mrs. A. Landry, agt.-opr.	444 00	Aug. 1, 1911	
42	Baie de Ha ! Ha !	27	Mrs. J. Monger, opr.	100 00	June 14, 1904	
			J. Monger, repairer	112 00	June 14, 1904	
43	St. Augustine	27	C. F. Johnson, rep. & opr.	212 00	Sept. 1, 1913	Hudson Bay Co. post.
44	Chicatica Bay	24	Miss Esther Robin	100 00	June 30, 1906	
			George Robin	112 00	June 30, 1906	
45	Rocky Bay	15	James Kennedy, opr. and repairer	212 00	July 27, 1911	
46	Old Fort Bay	15	J. Fequet & son William	25 p.c. commission	Mar. 29, 1911	
47	Bonne Espérance	7	G. Chevalier, repairer	112 00	Oct. 2, 1902	
			Miss Chevalier operator	110 00	Oct. 2, 1902	
48	Brador Bay	29		112 00		J. Jones retaking charge Oct. 27, 1910, as opr. and sent his resignation for 1st April, 1911.
			Cyrille Joncas, repairer	110 00	Oct. 10, 1909	
			A. Cormier, gen. rep.	500 00	Aug. 16, 1910	Plus 50 cents when absent on duty.
49	Long Pt. of Blanc Sablon	3	" agent	25 p.c. commission	Sept. 1, 1911	
50	Blanc Sablon	3	Thos. Morel, operator	212 00	Oct. 1, 1902	
51	Forteau Bay	13	A. Hart, rep. and opr.	212 00	July 19, 1902	

52	Pointe Amour	17	Thos. Whyatt, rep. and operator	112 00	Feb.	17, 1903	Main battery removed from West St. Modeste to Pt. Amour on Oct. 5, 1909, allowance $50 per yr.
53	West St. Modeste	16	Jas. Bolger, rep. and opr.	212 00	Oct.	5, 1902	
54	Red Bay	13	Geo. Moore, repairer	112 00	Oct.	9, 1902	
			Miss Moore, operator	100 00	Oct.	9, 1902	
55	Chateau Bay	30	J Bolger				Office open Aug.-Oct., 1912. Salary, $35 per month.
56	Belle Isle (cable)						Cable removed June 18, 1909.
	Totals	914		13,678 00			

LINE REPAIRERS, SECTIONS AND MILEAGE—MURRAY BAY TO CHATEAU BAY.

		Mileage.
A. Villeneuve, repairer	Murray Bay to Baie des Roehers.	35
G. Boulianne, repairer	Baie des Rochers to Bergeronnes	29½
G. Boulianne, repairer	St Catherines Bay to St. Etienne branch line	17
Ed. Courbron, repairer	Bergeronnes to Rivière Colombier (16 miles west of Bersimis)	67½
Jos. Gagnon, repairer	Rivière Colombier to West Crossing Rivière aux Outardes (24 miles east of Bersimis)	40
David Malouin, repairer	East Crossing of Rivière aux Outardes to English Bay (7 miles east of Manicouagan)	44
Wm. Montreuil, repairer	English Bay to St. Nicholas Harbour (14 miles west of Godbout)	27
N. A. Comeau, repairer	St. Nicholas Harbour to Pointe des Monts	32½
P. C. Vigneault, gen. repairer	Pointe des Monts to Thunder River	196¼
Ed. Cyr, gen. repairer	Thunder River to Kegaska	197¾
J. L. Osborne, gen. repairer	Kegaska to St. Augustine	202
A. Cormier, gen. repairer	St. Augustine to Chateau Bay	185
		1,073½

GOVERNMENT TELEGRAPH SERVICE—*Continued.*

GROSSE ISLE QUARANTINE TELEGRAPH SYSTEM.

No.	Stations.	Intermediate Distance.	Agents and Operators.	Salaries per Annum.	Date of Appointment.	Memo.
		Miles.		$ cts.		
1	Quebec	0	Great Northwestern Telegraph Co.	185 00		This amount is paid for supervision of the line, and covers rent of pole line from Quebec to L'Ange Gardien, for which $35 per annum is charged
	L'Ange Gardien	13				
	Orleans Island (cable).	¾				
2	St. Pierre	4½	E. Gendreau	50 00 or commission.	Dec. 1, 1910.	This commission is 25 p. c. of the Government line tariff in each instance, and guaranteed to amount to not less than $50 per annum.
3	St. Petronille	3½	Desneiges Plante	50 00 "	Oct. 1, 1896.	
4	St. Laurent	6½	M. Gobeil	120 00 and 25 per cent commission.	Sept. 15, 1888.	
5	St. Jean	7	P. Pouliot, dist. supt.	1,120 00 & 25 per cent commission.	Nov. 1, 1907.	For local agency. Dist. Supt. and repairer.
6	St. François	6¾	Helene Lemelin	50 00 or commission.	Oct. 1, 1907.	
7	Isle Reaux (including 2 knots cable).	3¼				
	Isle Reaux (land line)	2½				
8	Grosse Isle Quarantine office (including 2 knots cable).	3½	A. Dancause	540 00	Nov. 1, 1912.	$5 per month for messenger service in summer and $12 per annum allowed for care of main batt. at Grosse Isle.
	Quarantine telephone system, 2 wire line.	1¾				NOTE—The telephone system on Grosse Isle since May, 1893, has comprised 1¾ miles of 2 wire line with 25 connections or stations.
	Grosse Isle to Crane Island Including 5 knots cable.	8	Hector Lavoie	50 00 or commission.	Feb. 1, 1912.	
			Fenelon Pinchard	accommodation.	" "	
			Olivier Gagné	"	" "	Connection with the Bell Telephone System at Montmagny. Four stations on Crane Island.
9	Crane Island to Montmagny (cable).	5	Désiré Vezina	Signal Service Lighthouse	Sept. 1, 1909.	
			Numa Vézina		Feb. 1, 1912.	
			Chas. P. Roy	Accommodation	Nov. 1, 1913.	
			Jos. Lemieux		" "	
10	Crane Island to Goose Island.	10	E. Bernier	Accommodation	" "	
			Alf. Roy	"	" "	
			H. Vaillancourt	"	" "	

	Loop.					
11	St. François—St. François Nord	5	J. Asselin	50 00 or commission	Apr. 1, 1912.	
12	St. Jean—Ste. Famille	5½	Nap. Pichette	50 00 "	Aug. 31, 1912.	
	Totals	86¼		$2,268 00		

NOTE—In addition to the above there is included in the Quarantine Dist. Superintendency the undermentioned lines :—

	Telephone Lines.					
	Les Eboulements	0				
	Ile aux Coudres (cable)	3				Leased to the Charlevoix and Saguenay Telephone Company.
	On Ile aux Coudres	10				
		13				

ORLEANS ISLAND TELEPHONE LINE.

1	St. Pierre	0	Francis Côté	50 00 or commission	July 1, 1911.	
2	Ste. Pétronille	3½	Desneiges Plante	240 00	April 1, 1911.	Allowance of $6 per month for messenger service.
3	St. Laurent	6½	Laurent Godbout	50 00 or commission	July 1, 1911.	
4	St. Jean	7	Pierre Pouliot	50 00 "	Dec. 1, 1910.	
5	St. François	6¾	Xavier Lepage	50 00 "	July 1, 1912.	Government line connects with the Bell Telephone Co.'s line at L'Ange Gardien. Exchange connections made at Ste. Pétronille.
6	St. François-Nord	5	Frs. Lessard	50 00 "	Dec. 1, 1910.	
	Branch.					
7	St. Jean—Ste. Famille	5½	Jos. Premont	50 00 "	Dec. 1, 1910	
		34	Pole line : 34 miles	Wire : 68 miles.		

GOVERNMENT TELEGRAPH SERVICE—*Continued.*

BEAUPORT-LAVAL TELEPHONE LINE.

No.	Stations.	Intermediate Distance.	Agents.	Salaries per annum.	Date of Appointment.	Memorandum.
			I. Maheux	25 p. c. commission	Jan. 1, 1914	
1	Beauport	0	Bell Telephone Co.			Connection at Beauport with the Bell Telephone System.
	Ste. Thérèse north		J. Auclair	25 p. c. commission		
2	Ste. Thérèse	2	N. Bédard	25 p. c. "	Jan. 1, 1912	
3	Vallière's Mill	5½	A. Vallière	50 p. c. "	Feb. 1, 1910	
4	Laval	7½	Rev. E. Giroux	Accommodation.		
5	Laval		Mrs. Touchette	50 00	Feb. 1, 1910	*Commission is on Government line tolls only, and at Laval and Vallières Mill is guaranteed at the rate of $50 per year.
			L. E. Binet	25 p. c. commission	Jan. 1, 1914	
	Total	15				

CHARLESBOURG—LAKE BEAUPORT—STONEHAM TELEPHONE LINE.

1	Quebec—Charlesbourg	4	Bell Telephone Co.	$ 64 p. a.	July 26, 1913	
2	Lake Beauport	6	Mrs. J. Bigouette	25 p. c: Rcts.	Dec. 27, 1913	
3	" "		J. Cloutier	Sub		
4	" "		W. J. Fraser	"	Mar. 11, 1914	
5	" "		Mayor Murphy	"	Jan. 10, 1914	
6	" "		Miss F. Simons	"	" 10, 1914	
7	" "		Secy. Treas. Smith	"	" 15, 1914	
8	" " West	3	Mrs. W. Brown	25 p. c. Rcts	" 18, 1914	
9	Stoneham	18	J. Corrigan	$ 50 p. a.	Nov. 4, 1914	
10	"		W. Craig	Sub.	Jan. 15, 1914	
11	"		S. Plamondon	"	" 15, 1914	
12	Martineau Mills	3	A. Martineau	25 p. c. Rcts.	Nov. 1, 1913	
13	Tewkesbury	13½	W. Boyd	"	" 8, 1913	
14	"		Donaconna Paper Co.	Sub	" 8, 1913	
15	"		J. Isobel	"		
16	"		Three Lakes Fish Club.	"		
17	Lake St. Charles	5	L. P. Verrat	25 p. c. Rcts	Nov. 4, 1913	
18	" "		C. E. Begin	Sub.	Dec. 6, 1913	
19	" Huron	4	H. Gale	"	Nov. 8, 1913	
20	Village Askewra	3	Major E. Laliberte	"	Dec. 5, 1913	
21	St. Ignace	7¾	E. Reaume	25 p. c. Rcts.	Feb. 25, 1914	
22	"		J. Sansfacon	Sub.	Feb. 25, 1914	
	General Repairer		E. Martineau	$480 p. a	Mar. 1, 1914	
		67¼		$594.		

TIMISKAMING DISTRICT TELEPHONE LINES.

1	Kippewa Dam	0	J. A. Boisvert, Agent	25% Commission	May 20, 1911		
	Denis	14½					
2	Fabre	6	L. Valiquette, Agent	25% "	May 20, 1911		
3	Ville-Marie	13	J. Samson, Agent	25% "	May 17, 1911		Resigned Sept. 15, 1911.
			Mrs. L. Lepage, Agent	25% "	Sept. 15, 1911		Guaranteed commission to $50 per annum.
			J. Dumulon, Supt. and General Repairer	$65.00 per month	Nov. 13, 1911		And expenses while out on repair work.
4	Lorrainville	5	N. Legault, Agent	25% Commission	Sept. 1, 1911		
5	St. Eugène	13½	J. Bedard, Agent	25% "	Sept. 1, 1911		
6	Camp "B"	7½					
7	Camp "A" Quinze Dam.	½	P. Carrière, Agent	25% "	Mar. 1, 1912		Previous to March 1, 1912, office was in charge of Mr. G. B. Hull, Engineer in Charge Construction Quinze Dam.
8	Camp "C"	5					
9	North Timiskaming	13½	J. R. Monaghan, Agent	25% "	Aug. 1, 1911		$75 per year is paid Mr. Monaghan for office rent and Exchange Connection with Timiskaming Telephone Company's Line.
	Branch.						
	Ville Marie	0					
	St. Isidore	3½	J. N. Legault	25% "	Dec. 1, 1912		(Branch starts from main line 10 miles N. E. of Ville Marie).
		82					

GOVERNMENT TELEGRAPH SERVICE—*Continued.*

ONTARIO—PELEE ISLAND TELEGRAPH SERVICE.

STATEMENT showing List of Offices, Operators or Agents, Commissions or Salaries, and Summary of Messages exclusive of free messages. From March 31, 1913, to March 31, 1914.

No.	Stations.	Intermediate distance.	Agents and Operators.	Salaries per Annum.	Messages.		Date of Appointment.	Memo.
					Sent.	Rec'd.		
1	Dis't. Supt's. House	0	J. McR. Selkirk, Dist. Supt.	$50 00 per annum				Private Instrument.
2	Leamington Office	0	" " "	Commission 20 p.c.	587	670	Nov. 1, 1888	
	" "	2½	To Cable Landing (Mainland)				Aug. —, 1901	Near Leamington Dock.
	Mainland to Pelee Island	17¾	Cable to Island				Nov. 1, 1888.. Aug. —, 1901..	Near (Scudder) North Dock.
3	North Dock (Scudder)	0	C. B. Quick	Commission 25 p.c.	148	108	Nov. 1, 1888	
4	North Point Lighthouse	3	J. R. Lidwell	" "	4	1	June 1, 1899	
5	Station 31	¼	F. Cree	" "	16	12	Oct. 28, 1909	
6	Ouellette's	1¾	A. J. Ouellette	" "	81	28	June 19, 1908	
7	Pelee Club	0	Pelee Club (Island)	Accommodation Office	48	73	May —, 1910	Private Instrument. Pays for messages at Leamington Office.
8	W. J. McCormick		W. J. McCormick	" "				Private Instrument.
9	Hotel (Station 32)	2¾	John R. Beattie	Commission 25 p.c.	93	99	April 9, 1909	
10	Dr. Bell		Dr. Bell	Accommodation Office			April 9, 1909	Formerly Dr. Van Epp.
11	West Dock	¼	A. M. McCormick	Commission 25 p.c.	143	109	Nov. 1, 1888	
12	Srigley or Grove Ave.	3	Catharine Srigley	" "	44	28	Nov. 12, 1908	
13	Pelee South	2	J. S. McCormick	" "	40	47	Aug. 1, 1904	
14	Baird's House (Leamington)	2¾	A. Baird	" "		3	Nov. 2, 1904	
15	Jackson & Moss (Pt. Pelee)	5	Jackson & Moss	" "	7	2	Mch. 25, 1910	Near Old Club House site.
16	Edward Ford		Edward Ford	Accommodation Office			Oct. 2, 1912	Deputy Game & Fish Warden.
17	Baird's House	2¼	V. Ainslie	" "			June 23, 1909	
18	Tilden's	¼	W. Tilden	Commission 25 p.c.	31	30	April 29, 1905	
19	Point Pelee	2¾	W. A. Grubb	" "	15	47	Nov. 1, 1888	
		*45¾			1,257	1,257		

GOVERNMENT TELEGRAPH SERVICE—*Continued.*

NORTH WEST TELEGRAPH LINES—QU'APPELLE-EDMONTON SECTION.

No.	Stations.	Intermediate Distance	Agents and Operators.	Salaries per annum.	Date of Appointment.	Memo.
				$ cts.		
1	Qu'Appelle	0	E. P. Benoit	120 00	Jan. 1, 1911.	
2	Fort Qu'Appelle	17	P. R. Elmer	960 00	Aug. 15, 1906...	
	Fort Qu'Appelle		D. Sutherland, lineman..	900 00	Dec. 1, 1909....	
	To Loop	10				
3	Lipton	1	Can. Pac. Ry	10 p.c. commission	May 1, 1906....	
	To Main line	1				
4	Kutawa	45	A. Von Lindeburgh	900 00	Nov. 1, 1883....	
5	South Humboldt	78	H. J. Macdonald	900 00	Feb. 1, 1904....	Line distance increased account of shifting line from fields to roadway.
	To Loop	58½				
6	Saskatoon	14	J. H. Murphy	1,200 00	Jan. 18, 1913....	Salary increased Jan. 1, 1914.
	"		G. T. Clement, lineman..	900 00	Oct. 16, 1903.	
	"		Can. Pac. Ry. messenger.	120 00	May 1, 1911.	
	To Main line	14				
7	Henrietta	38	W. J. Salsbury	900 00	Oct. 1, 1886....	
8	Battleford	47	J. D. Noel	1080 00	Oct. 1, 1900....	Salary increased May. 1, 1913.
	"		J. Jackson, Assistant....	900 00	March 21, 1914 ..	C. Webster resigned
	"		H. C. Rogers, lineman..	900 00	Oct. 10, 1911....	
	"		E. Bidart, messenger....	240 00	Feb. 1, 1913...	
9	Bresaylor	28	J. T. Callahan	720 00	Dec. 1, 1900....	
	To Loop	67½				
10	Lloydminster	29	G. Crisfield	900 00	May 5, 1913....	S. DeCoste resigned.
	"		G. G. Mann, lineman..	900 00	Aug. 1, 1902....	
	To Main Line	29				
11	Onion Lake	13	H. McCleneghan	1200 00	Aug. 1, 1899 ..	Salary increased Aug. 1, 1913.
	"		R. McCleneghan, asst...	720 00	Dec. 1, 1913....	New appointment.
12	Frog Lake	23	E. A. Bowtell	600 00	March 1, 1911.	
13	Mooswa	12	A. Bowtell	840 00	Dec. 1, 1907....	Salary increased Jan. 1, 1914.
14	Elk Point	21½				Office closed.
15	St. Paul de Métis	17½	J. A. Gagnon	900 00	May 1, 1909....	
16	Saddle Lake	18	C. B. Ingraham	900 00	July 1, 1912....	
17	Pakan	36	R. McAdam	720 00	Feb. 1, 1905....	
	To Loop	5				
18	Andrew	5	R. L. Pickell	900 00	Jan. 1, 1913....	L. Carey, resigned.
	"		C. Norn, lineman..	900 00	March 15, 1906 ...	

GOVERNMENT TELEGRAPH SERVICE—*Continued.*

NORTH-WEST TELEGRAPH LINES—*Continued.*

No.	Stations.	Intermediate Distance.	Agents and Operators.	Salaries.	Date of Appointment.	Memo.
		Miles.		$ cts.		
19	Whitford	7	Postmaster	25 p.c. commission	July 1, 1905	
	Andrew to Main Line	5				
	To Loop	23				Distance increased account shifting line from fields to roadway.
20	Lamont	3½	H. A. Elliott	900 00	Nov. 1, 1913	B. DeMarsh resigned.
	To Main Line	3½				
21	Fort Saskatchewan	21	W. G. Shera	720 00	July 1, 1912	
22	Edmonton	18	G. Wilder	1,080 00	Dec. 1, 1908	
	"		E. J. Kane, assistant	1,020 00	July 29, 1912	Transferred from Athabasca
	"		A. H. Slight, assistant	1,020 00	Mar. 16, 1914	New appointment.
	"		M. Ettling, messenger	300 00	May 1, 1913	
	"		H. McGuire, messenger	300 00	" 1, 1913	McGraw and Wilson resigned.
	"		H. Hunt, clerk	1,080 00	Jan. 22, 1912	
	"		J. D. McIntyre, lineman	900 00	Nov. 1, 1913	A. W. Cass transferred to Athabasca.
	"		R. C. Macdonald, district superintendent	2,300 00	Oct. 1, 1905	
	"		J. S. Macdonald, general inspector	2,500 00	June 1, 1905	
	Total	712		32,340 00		

EDMONTON-PEACE RIVER SECTION.

	Edmonton	0	Preceding table				
1	Halfway Lake	49	J. C. Egge	25 p.c. commission	Jan.	1, 1910	
2	Athabasca	49	C. P. Samwell	900 00	June	1, 1913	E. J. Kane transferred.
	"		A. W. Cass, lineman	900 00	"	19, 1912	A. Parry transferred.
	"		E. Swanson, messenger	240 00	May	1, 1913	H. Neys resigned.
3	Mirror Landing	70	A. E. Holmes	900 00	Feb.	8, 1914	J. O'Regan resigned.
	"		A. Parry, lineman	900 00	April	1, 1912	H. Hautebergue resigned.
	"		J. McClellan, messenger	240 00	Feb.	14, 1914	New appointment.
4	Sawridge	38	J. M. Royer	900 00	Nov.	1, 1913	C. J. Schurter resigned.
	"		L. Young, lineman	900 00	"	1, 1913	New appointment.
5	Gironx Bay	39	S. Dickerson		Sept.	1, 1913	This office was opened for the convenience of the E. D. & B. C. Ry. They pay operators salary.
6	Grouard	39	J. A. Powers	900 00	Aug.	1, 1913	R. M. Osborn resigned.
	"		R. Harper, assistant	900 00	Mar.	1, 1914	New appointment.
	"		J. A. Bell, lineman	1,020 00	Feb.	5, 1914	G. MacLeod resigned.
	"		A. St. Germain, messn'gr	360 00	Mar.	1, 1914	H. Knibbs resigned.
7	Peace River	83	P. Gauvreau	900 00	Oct.	16, 1911	
	"		F. Anderson, lineman	900 00	"	23, 1912	
	"		F. Chalmers, messenger	300 00	Mar.	5, 1914	New appointment.
8	Fairview	62	H. L. Propst	25 p.c. commission	June	1, 1912	
9	Dunvegan	12	A. Vaillancourt	900 00	Nov.	11, 1912	
10	Spirit River	15	W. R. Holden	900 00	July	1, 1912	
	To Loop	53					
11	Grand Prairie City	8	J. H. Byrne	900 00	Sept.	2, 1912	
	To Main line	8					
12	Lake Saskatoon	8	G. Coleman	900 00	March	20, 1913	
	"		R. Harvey, lineman	900 00	Sept.	25, 1913	C. Banford resigned.
	Total	533		15,660 00			

St. Paul de Metis—Durlingville Line.

	St. Paul de Metis	0	Main line table				
1	Rife	24	E. O. Boyd	909 00	Nov.	26, 1912	
2	Bonnyville	6	E. A. Dussault	25 per cent commission.	Aug.	19, 1913	New office.
3	Durlingville	18	L. T. McLeod	600 00	July	22, 1912	Resigned January 31, 1914, office closed.
		48		1,500 00			

GOVERNMENT TELEGRAPH SERVICE.—*Continued.*

MOOSEJAW—WOOD MOUNTAIN SECTION.

No.	Stations.	Intermediate Distance.	Agents and Operators.	Salaries per Annum.	Date of Appointment.	Memo.
1	Moosejaw	0	J. Lovelace	1,020 00	May 1, 1911	Salary increased January 1, 1914.
	"		C. P. R. Messenger	120 00	July 1, 1911	
	"		C. P. R. Battery	120 00	Feb. 1, 1912	
2	Expanse	39	G. T. Brown	900 00	Sept. 20, 1912	
	"		C. H. R. Clark, lineman	900 00	Sept. 1, 1913	J. Gagnon resigned.
	To loop	25				
3	Gravelburg	19	J. A. Hamelin	900 00	Sept. 8, 1910	
	To main line	19				
4	Limerick	13	Myrtle Crosson	720 00	Nov. 18, 1913	
	To loop	3				
5	Assiniboia	14	R. Hodgson	900 00	Sept. 14, 1912	
	To main line	14				
6	Wood Mountain	27	J. H. Thomson	900 00	Dec. 1, 1890	
	"		F. Brown, lineman	900 00	Nov. 1, 1905	
7	Elm Springs	13	Office closed			
8	Willow Bunch	26	M. A. Noel	900 00	Oct. 19, 1904	
		212		8,280 00		

BATOCHE—DUCK LAKE STATION.

1	Batoche	0				This line not in operation.
2	Duck Lake	9				
		9				

	Battleford	0	Main Line table				
1	North Battleford	4	F. J. Colmer	1,080 00	Nov. 1, 1912	Salary increased March 1, 1914.
	To loop	21	R. Colmer, messenger.	240 00	May 7, 1913	New appointment.
2	Meota	10	F. W. Hearn	900 00	Nov. 1, 1913	O. S. Tenny, deceased.
	To main line	10				
3	Glaslyn	30	A. G. McCartney	900 00	Sept. 26, 1912	
4	Meadow Lake	66	J. R. McCordic	900 00	" 9, 1912	
5	Green Lake	44	R. White	900 00	Oct. 17, 1912	
		185		4,920 00		

BRANCH TELEPHONE LINES.

	Edmonton	0				This line was built in 1904 and is being operated from the Central telephone office in Edmonton.
1	Winterburn	8½				
2	Indian Agency	5½				
3	Spruce Grove	8				
4	Stony Plain Centre St'n.	6½				
5	Stony Plain Centre	3½				
		32				
	Edmonton	0				This line has been in operation to St. Albert since 1887 and to Alexandre since 1902 and is operated from the Central Telephone office in Edmonton.
1	St. Albert	9				
2	Raye	12				
3	Rivière-Qui-Barre	8				
4	Alexandre	5				
		34				

FILE HILLS LINE.

1	Ft. Qu'Appelle	0				This line was built in 1908 for the convenience of the Department of Indian Affairs exclusively.
2	Lebret	4				
3	Balcarres	11				
4	File Hills Agency	13				
		28				

GOVERNMENT TELEGRAPH SERVICE.—*Continued.*

BRANCH TELEPHONE LINES.

KAMSACK LINE.

No.	Stations.	Intermediate Distance.	Agents, &c.	Position.	Salaries per Annum.	Date of Appointment.	Memo.
		Miles.			$ cts.		
1	Kamsack, C. N. R.	0					This line was built in 1907 for the Department of Indian Affairs. Kamsack is on the C. N. R. 100 miles North East of Fort Qu'Appelle and is in no way connected with the Government Telegraph line. The portion of the line in brackets was built in 1910.
2	Dr. Wallace's office	0					
3	Indian Agency	½					
4	St. Phillips Mission	5					
5	Hudson Bay Co. (Pelly)	7					
6	Keys Reserve	5½					
		24					

DUCK LAKE LINE.

1	Duck Lake, C. N. R.	0					This line was built in 1902 for the use of the Department of Indian Affairs exclusively.
2	R. N. W. M. P.	0½					
3	Indian agency	3					
		3½					

SADDLE LAKE LINE.

	Saddle Lake	0					This line was built in 1900 for the use of the Department of Indian Affairs exclusively.
1	Industrial School	6½					
		6½					

PEACE RIVER—SHAFTSBURY TELEPHONE LINE.

	Peace River	0				This line was built in 1911. The telephones were installed on a rental basis to the parties named at an annual charge of $15 conditionally that they are also intended for the use of the public when wishing to reach our Peace River office for which a charge of 10 cents will be made.
1	Collins	3				
2	R. C. Mission	5				
3	A. Brick	6½				
4	English Church Mission	½				
		15				

GROUARD—PRAIRIE RIVER TELEPHONE LINE.

	Grouard	0				This line was built in 1912 and 1913. These telephones were installed at a rental basis to the parties named at an annual charge of $15, conditionally that they are also intended for the use of the public when wishing to reach our Grouard office for which a charge of 10 cents will be made.
1	B. A. See	3				
2	Martin Ouellette	5				
3	Travers Bros	4				
4	D. S. Hayden	8				
5	Mr. McQue	5				
6	S. Harris	1				
7	O. D. Hill	2				
8	G. Martin	3				
9	J. Bennie	1				
10	L. Becker	2				
11	W. Lesage	3				
		37				

ASSINIBOIA RESERVE—SINTALUTA TELEPHONE LINE.

	Sintaluta	0				This line was built in 1913 for the use of the Department of Indian Affairs exclusively.
1	Assiniboia Reserve	8				
		8				

GOVERNMENT TELEGRAPH SERVICE—*Continued.*

KAMLOOPS-OKANAGAN LINE.

No.	Stations.	Intermediate Distance.	Agents, &c.	Position.	Salaries per Annum.	Date of Appointment.	Memo.
		Miles.			$ cts.		
1	Kamloops		W. H. Stevens	Superintendent	1,500 00	March 1, 1914	
	"		Miss V. L. Palmer	Accountant	720 00	Oct. 1, 1911	Salary increase $10.00 September 1, 1913.
	"		Miss M. H. Palmer	Stenographer	600 00	July, 1913	
	"		Miss M. E. Grindrod	Agent	600 00	Feb. 8, 1914	
	"		Mrs. E. H. Shelton	Night Operator	420 00	Aug. 11, 1913	
	"		B. Hirst	Messenger & Book Keeper.	420 00	Sept. 1, 1912	
	"		District Supt's. Officers Agents Office.	Rent	540 00		
2	Knutsford	5	J. S. Jones	Agent	Commission.	Dec. 1913	
3	Bulmans	12	J. Bulman	"	"	July 1, 1909	
4	McDonalds	5	W. R. McDonald	"	"	" 1, 1901	
5	Stump Lake	4	J. Whitford	"	"	" 1, 1910	
6	Murrays	3	Wm. Murray	"	"	Jan. 1, 1913	Spur 2 miles.
7	Frasers	2	G. Fraser	"	"	" 1905	
8	Rockford	4	Mrs. D. C. Wilson	"	"	March 1, 1914	
9	Moores	4	E. E. Wilkinson	"	"	Jan., 1910	
10	Guichons	3	Jos. Guichon	"	"	July, 1905	Spur from Quilchena.
11	Lauders	7	Wm. Lauder	"	"	" 1905	" " "
12	Douglas Lake	9	F. B. Ward	"	"	" 1905	" " "
13	Quilchena	9	J. A. Guichon	"	"	May, 1907	
14	Nicola	9 m. from Quilchena.	M. V. Munro	"	600 00	July, 1905	Local exchange 14 subscribers.
15	Merritt	7	Miss D. P. McGoran	"	600 00	Nov., 16, 1913	
	"		Nellie Heslop	Operator	420 00	" 1, 1913	
	"		M. T. Royds	Lineman	1,200 00	" 1, 1913	
			Merritt Rent		240 00		
16	Coutlee	3	H. S. Cleasby	Subscribers			
17	Lower Nicola	4	Mrs. R. M. Woodword	"			Spur from Merritt.
18	Canford	8	C. Hardiman	"			
19	Crowders	18	Frank Crowder	Agent	Commission.	Oct., 1911	
20	Aspen Grove	6	Wm. Cooper	"	"	Nov., 1908	
21	Hastings Ranch	7	R. L. McGill	"	"	June, 1911	
22	Colletts Ranch	6	Wm. Cooper	"	"	" 1911	
23	Otter Valley	12	J. G. Thynne	"	"	Oct., 1907	
24	Guthrie & McDougall	2	Guthrie McDougall & Co.	"	"	March 1913	

25	Tulameen	7	J. A. Schubert	"	"	Sept,	1911	
26	Coalmont	3	Isaac McTavish	"	"	Jan. 1,	1913	
27	Granite Creek	3	F. P. Cook	"	"	Dec. 1,	1911	
28	Coalmont Colleries	10	A. N. Cantril	"	"	March 1,	1914	
29	Princeton	1	Alex. Bell	"	480 00	Aug.,	1908	Local exchange 38 subscribers.
30	"		D. A. Miner	Lineman	960 00	Oct., 29,	1913	
31	Hedley	25	F. M. Gillespie	Agent	480 00	Aug.	1909	" 16 "
32	Richters	20	F. Richters Estate	"	Commission.	Oct.,	1908	" 19 "
33	Keremeos Station	3	H. N. Etches	"	600 00	Jan.	1908	Previous to March this was commission office.
34	Fairview	18	S. J. McCuddy	"	Commission.	July,	1909	
35	Vasseau Lake	9	Mrs. K. Mackenzie	"	"	"	1914	
36	Okanagan Falls	6	W. B. Hine	"	"	Oct.,	1908	
37	Kaleden	6	A. S. Hatfield	"	"	"	1910	
38	Marron Lake	8	W. Smythe Parker	"	"	Nov.,	1910	
39	Penticton	10	Miss Carrie Crowe	"	720 00	Nov. 1,	1912	
			Gladys Limmer	Telegraph opr.	600 00	Feb. 1,	1914	
			C. F. Layton	Lineman	900 00	Nov. —,	1911	
			Robert Park	Messenger	180 00	Sept. 1,	1913	
			Rent	Rent	300 00			
40	Trout Creek	8	J. R. Brown	Agent	Commission.	July. —,	1913	
41	Summerland	3	W. H. Hayes	Agt. & Telg. opr.	900 00	" —,	1906	
42	Peachland	18	A. W. McDougald	Agent	Commission.	Aug. —,	1912	
43	West Bank	17	Wm. G. Hewlett	"	"	—— —,	1910	
44	Kelowna	2	H. H. Millie	"	600 00	Nov. 1,	1912	
45			Mrs. Johnston	Telegraph opr.	960 00	" 1,	1912	
			Eleanor Pennell	Telephone opr.	480 00	" 1,	1912	
			W. Bouvette	"	480 00	" 1,	1913	
			John Adams	Messenger	240 00	Mar. 15,	1914	
		Rent.			144 00			
45	Oyama	20	F. H. Aldreed	Agent	Commission.	—— —,	1911	
46	Okanagan Centre	3	J. A. Gleed	"	"	—— —,	1910	Spur 3 miles.
47	Vernon	14	Mrs. B. Steward	"	1,020 00	Aug. 20,	1914	
			Marjorie Lifford	Telephone opr.	480 00	July 31,	1914	
			W. F. Auld	Telegraph opr.	960 00	Aug. 21,	1914	
48	Okanagan L'dg, branch from Vernon	4	J. Briard	Messenger	240 00	June —,	1912	
			J. A. Bulman	Agent	Commission.	July —,	1912	Spur 4 miles from Vernon.
49	Lumby, branch from Vernon	17	H. Saddler	"	60 00	Mar. 30,	1914	
	Total	384						

GOVERNMENT TELEGRAPH SERVICE—*Continued.*

Kamloops—Vernon Section.

No.	Stations.	Intermediate Distance.	Agents, &c.	Position.	Salaries per Annum.	Date of Appointment.	Memo.
		Miles.			$ cts.		
1	Kamloops	0					
2	Riverview Sanitorium	1	Fanny Pankhurst	Agent	Commission.	Mar. 1, 1914	
3	Pioneer Poultry Ranch	4	R. Barton	"	"	Oct., 1913	
4	Holmwood	20	A. W. Duck	"	"	Nov., 1911	
5	Ducks	4	A. D. Brooks	"	"	Jan., 1913	
6	Barnes Ranch	2	Geo. Barnes	"	"	Apr. 15, 1914	Spur from March, 1914.
7	Grand Prairie	11	E. W. Hoole	"	"	July, 1911	
8	Falklands	17	A. H. Notley	"	"	" 1912	
9	Vernon	17					
	Total	76					

North Thompson River Line.

1	Kamloops						
2	Anderson Ranch	10	O. M. Stitt	Agent	Commission.	Mar. 1, 1914	
3	Austins Ranch	3	T. Bunting	"	"	" 1, 1913	
4	Hefley Creek	1	H. N. McDaniels	"	"	April 1, 1914	
5	Twenty-five Mile	12	J. McCarten	"	"	Nov. 1908	20 p.c. Commission of Governement Line tolls.
6	Louis Creek	10	S. Armour	"	"	April 1, 1914	
7	Barriere	3	J. H. H. Nelson	"	"	Mar. 15, 1913	
8	Borthwicks	2	Geo. Bortwick	"	"	April 1911	
9	Geniers	2	Mrs. Adelaide Genier	"	300 00	June 1913	
10	Chinook Cove	2	Malcolm White	"		" 1911	Spur 2 miles west side River.
11	Chu Chua	12	Geo. Fennell	"	Commission.	Nov. 1910	
12	Mount Olie	7	T. G. Kingscote	"	"	Sept. 1, 1912	
	Total	64					

This line is operated on toll system the rates based on mileage in conjunction with the Okanagan Valley Line.

Nakusp—Edgewood Line.

1	Nakusp	0	L. J. Edwards.	Agent & Circuit Manager.	600 00	December	1912	
2	Rock Island	14	D. A. Middlemass	Agent	Commission.	"	1912	
3	Arrow Park	4	A. E. Keffer	"	"	"	1912	
4	Burton City	5	Robert Stevens	"	"	"	1912	
5	Fauquiers	12	George E. Smedley	"	"	"	1912	
6	Needles	2	A. W. Lift	"	"	"	1912	
7	Edgewood	13	W. J. Banting	"	"	"	1912	
	Total	50						

Kamloops—Savonas Line.

1	Kamloops	0						
2	Cornwalls	11	Henry Cornwall	Agent	Commission	Oct.	30, 1913	
3	Cherry Creek	4	J. Newman	"	"		1913	
4	Rowlands	9	D. W. Rolands	"	"		1913	
5	Tunstalls	1	G. Tunstall	"	"	Nov.	1913	
6	Savonas	1	W. J. Ferguson	"	"	"	1913	
		26						

Kamloops—Rose Hill Section.

1	Kamloops	0						
2	Rose Hill	7	Angus McKay	Agent	Commission.	March	1911	
3	Barnhartvale	5	P. A. Barnhart	"	"	Jan.	1911	
		12						

GOLDEN—WINDERMERE TELEPHONE LINE.

1	Golden	0	Miss R. E. Kenny	Agent	780 00	Nov.	1913	
	Rent				180 00			Allowed for rent.
2	Canyon Creek	6	F. W. Jones	Subscriber				
3	McMurdo	7	T. R. Haddon		Commission.			Closed Dec. 1, 1913.
4	Beard Creek	10	E. J. Tennant	Line repairer	1,200 00			Pay all expenses.
5	McKeemans	7	R. McKeemans	Subscriber	Commission.			Closed Dec. 1, 1913.
6	Camp B. C. Govt.	6						" Oct. 12, 1913.
7	Spillamachene	5	H. G. McDonald	Agent	Commission.	Nov.	1, 1912	
8	Heffners Landing	1	H. G. Low	Subscriber				
9	Brisco	5	W. H. Aitchison	"				
10	Brisco	5	W. P. Alson	"				

GOVERNMENT TELEGRAPH SERVICE—*Continued.*

GOLDEN—WINDERMERE TELEPHONE LINE—*Continued.*

No.	Stations.	Intermediate Distance.	Agents, &c.	Position.	Salaries per Annum.	Date of Appointment.	Memo.
		Miles.			$ cts.		
11	Camp K. C. Rly	2	Kootney Central Ry	"			Closed December, 1913.
12	Brisco	1	H. Aitchison	Agent	Commission.		
13	"		A. H. Mitchell	Subscriber			
14	Edgewater	12	Columbia Valley Orchards Ltd	"			
15	Sinclair	4	Columbia Valley Ir. Co.	Agent	Commission.		
16	Wilmer	14	Mrs. M. H. Hope	"	780 00	April 1, 1912.	
17	Athalmer	4	Jas. Lake	"	Commission.	Oct. 1, 1908.	
18	Windermere	4	J. C. Pitt	"		July 1, 1914.	
19	Invermere	1	G. A. Stark	Subscriber			
		89					

GOVERNMENT TELEGRAPH SERVICE—*Continued.*

BRITISH COLUMBIA—*Continued.*

LOCAL EXCHANGES IN OPERATION.

Place.	Number of Subscribers.	Rent paid per Annum.		
		Business.	Dwellings.	General.
		$ cts.	$ cts.	
Merritt	85	36 00	24 00	
Nicola	14	30 00	24 00	
Princeton	38	24 00	18 00	
Hedley	16	24 00		
Golden	10	36 00		
Golden, Windermere Section to Invermere	24	36 00		

Main line rates charged are given in Tariff section of Report.

GOVERNMENT TELEGRAPH SERVICE—VANCOUVER ISLAND LINES.

VICTORIA-BAMFIELD SECTION.

No.	Stations.	Intermediate Distance.	Name.	Position.	Salaries per month or Commission.	Date of Appointment.	Remarks.
		Miles.			$ cts.		
1	Victoria	0	Jas. McNeil	Agent	95 00	April 1st, 1911	
	"	0	Wm. Harker	Messenger	35 00	Oct. 1st, 1913	Vice D. Dowdell and Jas. Simpson resigned.
2	Luxton	9	J. H. Smith	Agent	25 p. c. Commission	Jan. 14th, 1914	
3	Sooke Road	8	Sarah Gent	"	" "	June 1st, 1911	
	"		A. Gent	Line repairer	85 00	April 1st, 1911	
4	Coopers Cove	1	Subscribers				
5	Sooke	½	Isabella Milne	Agent	50 00	Sept. 1st, 1913	Office Rental $5 from Sept. 1st, 1913.
6	Otter Point	6	Mrs. K. Gordon	"	50 00	Oct. 1st, 1908	
7	Jordan River	14	Mrs. C. McVicar	"	25 p. c. Commission	Oct. 1st, 1911	
	" "	14	J. N. McVicar	Line repairer	85 00	June 1st, 1909	
8	Slide Hill	14	D. H. Soule	" "	85 00	Feb. 1st, 1911	
9	Port Renfrew	14	Mrs. E. C. Williams	Agent	65 00	Feb. 20th, 1913	
	"		T. M. Baird	Line repairer	85 00	Nov. 1st, 1908	
10	Camp Bay	17	A. McLennan	" "	85 00	Aug. 1st, 1911	
11	Carmanah					Nov. 1st, 1891	New Test Station.
12	Clo-oose	15	E. Arnold	" "	85 00	June 1st, 1912	
	"		Miss C. Logan	Agent	25 p. c. Commission	Jan. 1st, 1913	
13	Pachena	15	D. Logan	Line repairer	85 00	April 1st, 1898	
14	Bamfield	15	H. W. Ragbourn	Agent	85 00	May 1st, 1913	Vice G. M. Ross, transferred to Vancouver May 1st, 1911.
	"		W. B. Monette	Line repairer	85 00	Nov. 23rd, 1913	Vice C. E. Monseley services dispensed with.
		130					

Phones have been installed on this line for the use of Pachena Lighthouse, Life Saving Patrol Hut Tsusiat and Seven Mile River, latter two places during the winter months only: Agent Mrs. Gordon, Otter Point; line repairer McVicar, Jordan River, line repairer Soule, Slide Hill, line repairer Baird, Port Renfrew, line repairer McLennan, Camp Bay; light house Carmanah; Agent, Mrs. Williams, Port Renfrew, line repairer Arnold, Clo-oose; Agent, Miss C. Logan, Clo-oose; line repairer Shelter hut; Agent Ragbourn, Bamfield, Life saving station, Bamfield, Light house, Cape Beale, latter on line maintained by the Marine and Fisheries. All salaries on this line were increased to present rating on 1st June 1913. Sooke Exchange opened on September 1st, with 17 subscribers at $24. per year. The Jordan River Circuit with it's previous subscribers joined up to this Exchange.

ALBERNI-BAMFIELD SECTION.

15	Alberni	0	Mrs. P. A. Haslam	Agent	65 00	Dec. 1, 1902	$5 per month allowed for office rent.
16	Port Alberni	2	G. A. Bellamy	Line repairer	85 00	May 1, 1913	Vice D. Stone.
	" "		E. B. Garrard	Agent	80 00	April 1, 1911	$12.50 per month allowed for office rent.
17	Bamfield	51	H. W. Ragbourn	"	85 00	May 1, 1913	Vice G. M. Ross transferred to Vancouver May 1, 1913.
	"		J. B. McKay	Line repairer	85 00	April 1, 1911	

Branch line to Cape Beale from Bamfield, also to Life Saving Station, Bamfield transferred to Marine and Fisheries Dept. as the line is entirely for their service.

ALBERNI-CLAYOQUOT SECTION.

18	Port Alberni	2	E. B. Garrard	Agent			See item No. 16.
18	" "		J. B. McKay	Line repairer			" "
19	Franklin Creek	8					Line crosses Alberni Canal here by submarine cable.
20	Uchucklesit	23	J. W. Barnes	Line rep. & agent	80 00	Dec. 16, 1913	Vice J. Williams resigned.
21	Toquart	9	J. E. Hillier	" " "	85 00	Nov. 16, 1908	Government own office building occupied by line repairer as residence.
22	Ucluelet	24¼	H. J. Hillier	" " "	80 00	Dec. 1, 1902	$8.50 allowed for rent.
23	Long Beach		Accommodation office				Point of connection from Main lines to branch line,
24	Tofino	30¼	F. C. Garrard	" " "	80 00	April 1, 1911	Name of office changed from Stubbs Is. $2.50 allowed for office rent.
25	Clayoquot	1	J. C. Barbour	Agent	80 00	Jan. 1, 1913	
		97½					

TOQUART—SECHART.

	Toquart	0	J. E. Hillier	Line rep. & agent			See item No. 21.
26	Sechart	9½	Accommodation Office				Whaling station.
27	Tofino, Mosquito Harbour						
28	Tofino	0	F. C. Garrard	Line rep. & agent			
29	Mosquito Harbour	10½	Accommodation Office				
	Tofino-Clayoquot Sound						See item No. 24.
30	Tofino	0	F. C. Gerrard	Agent & line rep.			Lumber and logging firm,
31	Clayoquot Sound	11½	Accommodation Office				See item No. 24.
	Tofino—Leonard Island Light						
32	Tofino	0	F. C. Garrard	Agent & line rep.			Clayoquot Sound Canning Co.
33	Leonard Island Light House	1½	Accommodation Office				For Marine ard Fisheries Dept.

Branch line constructed to give connection to lifeboat station, coxswains house and lookout stations on Ucluelet Arm and Barklay Sound, transferred to Marine and Fisheries Dept. to maintain, as the line is entirely for their service.

VANCOUVER ISLAND LINES—*Continued.*

NANAIMO-COMOX-CAMPBELL RIVER SECTION.

No.	Stations.	Intermediate Distance.	Name.	Position.	Salaries.	Date of Appointment.	Remarks.
		Miles.			$ cts.		
34	Nanaimo	0	M. S. Stephens	Agent	100 00	Nov. 1, 1913	Vice A. C. Cole, resigned.
34	"		H. W. Spencer	Messenger	35 00	March 20, 1911	
35	Wellington	5	H. R. Parker	Agent	25 p.c. commission	March 1, 1911	
36	Parksville	23	L. H. Bradbury	Agent	80 00	Aug. 1, 1910	
36	"		Wm. Mills	Line repairer	85 00	June 1, 1903	
37	Union Bay	29	Fred. Brown	Agent	80 00	Dec. 16, 1913	Vice A. M. Falconer transferred to Snug Cove and R. H. Wendeborn transferred to N. Vancouver.
38	Cumberland	10	T. Horne	Agent	80 00	July 1, 1913	Vice H. G. Williams, resigned.
39	Union Bay		T. Hudson	Line repairer	100 00	Nov. 17, 1898	
40	Courtenay	7	J. Aitken	Agent	80 00	Feb. 1, 1912	
41	Comox	8	Mrs. N. Smith	Agent	65 00	Sept. 1, 1911	$5 per month allowed for office rent.
42	Oyster River	32	Miss S. Woodhus	Agent	25 p.c. commission	April 1, 1909	
43	Campbell River	4	W. J. Ruth	Agent	80 00	Oct. 6, 1913	Vice W. E. Spencer and E. J. Murphy
		118					
	Branches.						
	Parksville-Alberni.						
44	Parksville		L. H. Bradbury	Agent			See item No. 36
45	"		Thos. Hirst	Line repairer	85 00	Feb. 4, 1911	
46	Alberni	30	Mrs. P. A. Haslan	Agent			See Item No. 15
47	"		A. A. Lynn	Line repairer	85 00	April 1, 1912	
	Comox-Cape Lazo.						
48	Comox		Mrs. N. Smith	Agent			See item No. 41
49	Cape Lazo	6	Gov't. Wireless	Operator			To give connection to Wireless station line locally repaired.

	Union Bay-Denman & Hornby Island.						
50	Union Bay	0	Fred Brown	Agent		Dec. 16, 1913	See item No. 37
51	Cable Landing						
	Denman Island	8	Wesley Piercy	Agent	25 p.c. commission	Feb. 1, 1908	
52	South Denman Island	5½	Thos. Chalmers	Agent	" "	Feb. 1, 1908	
53	South Hornby Island	2½	Thos. Smith	Agent	" "	Feb. 1, 1908	
54	North Hornby Island	9	Geo. Howes	Agent	" "	June 15, 1912	

All salaries on this line were increased to present rating on June 1st., 1913.

NANAIMO—GABRIOLA ISLAND SECTION.

55	Nanaimo	0	B.C. Telephone Co	Agent	25 p.c. commission	Feb. 1, 1909	
56	" Govt. Tells		M. S. Stephens				See item No. 34
57	" River	5¼	J. Gordon	Agent	25 p.c. commission	Feb. 1, 1909	
58	North Gabriola	1¾	R. Hoggan	"	25 p.c. "	Oct. 1, 1910	
59	Centre "	5	Dom'n Shale Brick & S. P. Co		25 p.c. "	Mar. 1, 1912	
60	Shaws		Mrs. W. N. Shaw	Agent	25 p.c. "	June 1, 1912	
61	South Gabriola	7	J. Degan	"	25 p.c. "	Feb. 1, 1909	
		19					

VANCOUVER ISLAND LINES—*Continued.*

CAMPBELL RIVER—TEXADA ISLAND SECTION.

No.	Stations.	Intermediate Distance.	Name.	Position.	Salaries.	Date of Appointment.	Remarks.
		Miles.			$ cts.		
62	Campbell River	0	W. J. Ruth	Agent			See item No. 43.
63	Quathiaski Cove	3	W. E. Anderson	"	25 p.c. commission.	Nov. 1, 1910	
64	Heriot Bay	6¼	H. A. Bull	"	25 p.c. "	Nov. 1, 1910	
65	Bagots	1½	T. H. Bagot	"	25 p.c. "	Jan. 1, 1913	
66	Mary Island	8	W. Milne	" & Line Rep.	25 p.c. "	Oct. 1, 1912	
67	Cortez Island	10	W. Manson	"	25 p.c. "	Nov. 1, 1910	
68	Lund (Mainland, B. C.)	17	J. C. Fraser	" & Line Rep.	85 00	Feb. 19, 1913	Vice F. Thulin, resigned, H. D. Birdsal, resigned.
69	Sliammon	12		Test Station			
70	Powell River	3	W. E. Spencer	Agent	80 00	Mar. 1, 1913	
71	Blubber bay	5½	J. B. Fry	"	25 p.c. commission.	Feb. 10, 1911	
72	Van Anda	6	A. G. Deighton	"	25 p.c. "	Feb. 10, 1911	
73	"		J. R. Fraser	Line Repairer		Feb. 10, 1911	Makes repairs when necessary.
		72¼					

Lund changed from commission office on Feb. 1st to salaried office with H. D. Birdsall as operator-line repairer in charge.

All salaries on this line increased to present rating on June 1st, 1913.

Permanent Line repairer, J. C. Fraser, headquarters at Lund, repairs line from Powell River to Sarah Point 22 miles all on Mainland of British Columbia.

Land line on Valdez Island repaired by Line Repairer Bagot and paid only for time occupied executing repairs.

"	Mary	"	"	Milne	"	"	"
"	Cortez	"	"	Hamarech	"	"	"
"	Texada	"	"	J. R. Fraser	"	"	"

			Wm. Dee	Dist. Supt	120 00	April 1, 1911	Vice Wm. Henderson.
			A. V. Porter	Line Foreman	110 00	June 1, 1911	Supplied with motor launch to travel between points making repairs to line and instrument.
			H. Ward	Engineer on launch	90 00		
					25 60 board allow	June 1, 1912.	
			Miss N. Marshall	Temporary Clerk, Dist. Supt.'s office	40 00	Nov. 1, 1913 to Feb. 28, 1914.	
			Frank Davey	Clerk, Dist. Supt. office.	100 00	March 1, 1614.	

SALT SPRING ISLAND TELEPHONE LINE.

1	Duncan	0	Miss M. Robertson	Agent	65 00	Mareh 1, 1912	$5 per month allowed for office rent.
2	Maple Bay	9	Mrs V. E. Porter	"	25 p.c. Commission	June 1, 1913	Vice Miss L. P. Springett, resigned.
3	Chisholms	3¾	A. Chisholm	"	25 p.c.	July 1, 190›	Cable crosses here.
4	Sansun Narrows	3					
5	Trenches	3	C. N. Trench	Subscriber	25 p.e. commission	March 1, 1912	
6	South Salt Spring	1	R. P. Edwards	Agent	25 p.c. "	Dee. 1, 1912	Office formerly known as Beaver Point.
7	Bridgmans	6½	A. J. W. Bridgman	"	25 p.e. "		
8	Fultord Harbour		C. M. Blandy	Subscriber	25 p.c. "	July 1, 1908	
9	Cushion Cove	3	Bullman Lbr. Co.	Agent	25 p.c. "	Sept. 1, 1911	
10	Horels	2	James Horel	"	25 p.c. "		
11	Beechs		Dr. Alan Beech	Subscriber		July 1, 1905	
12	Ganges Harbour	6	G. J. Mouat	Agent	25 p.e. commission	Nov. 1, 1908	Cable crosses here.
13	Bedwell Harbour	2½	Mrs. A. R. Spalding	"	25 p.e. "	Oct. 1, 1908	
14	South Pender	1½	L. S. Higgs	"	25 p.c. "	May 1, 1913	Now known as Aldridges.
15	Schriebers	3½	A. H. Aldridge	Subscriber			
16	Browning Harbour	3	W. Brackett	Agent	25 p.c. commission	Jan. 1, 1908	
17	Hope Bay	2½	J. W. Corbett	"	25 p.c. "	Oct. 1. 1911	Re opened.
18	Clam Bay	2	A. Davidson	"	25 p.c. "	June 1, 1913	
19	Port Washington	2	C. A. Gaunt	"	25 p.e. "	Feb. 1, 1913	
20	Village Bay	5	A. Deacon	"	25 p.c. "	Dec. 1, 1908	
21	Mayne Island Hotel	2½	C. J. McDonald	"	25 p.c. "	" 1, 1908	
22	Active Pass Lt. House	1½	Geo. Georgeson	"	25 p.c. "	" 1, 1908	
23	Galiano Island	3	Burrill Bros.	"	25 p.e. "	" 1, 1908	
			Cable 7¼				
		69¼	Land 62				

Subscribers pay $36 yearly rental and regular tariff.
Repairs made to land line on the various sections as under; only actual time occupied in making repairs paid for.
Duncan to Sansun Narrows, A. J. Chisholm, line repairer. Salt Spring Island-Sansun Narrows to Ganges and Bridgmans J. Horel, Line Repairer.
Pender Island:—W. Brackett, Mayne Island;—Cable landing to Active Pass lighthouse, A. Deacon, line repairer
All salaries on this line increased to present rating on June 1, 1913.

GOVERNMENT TELEGRAPH SERVICE—VANCOUVER ISLAND LINES—*Continued.*

POWELL RIVER TO NEWPORT.

No.	Station.	Intermediate Distances.	Name.	Position.	Salaries.	Date of Appointment.	Remarks.
		Miles.			$ cts.		
74	Powell River	0	W. E. Spencer	Operator	80 00	May 17, 1912	Vice F. H. Wager & L. H. Earle, resigned.
75	Wolfson Bay	15	Wm. Peterson	Agent	25 p.c. commission.	Sept. 1, 1913	
76	Stillwater	3	J. H. Brownrigg	"	25 p.c. "	May 17, 1913	
77	Hardy Island	6	W. W. Wood	"	25 p.c. "	" 17, 1913	
78	Nelson Island	7	R. M. McKay	Lineman	85 00	Nov. 1, 1913	
79	Pender Harbour	4½	Theo. Dames	Agent	25 p.c. commission.	July 15, 1913	
80	Bargain Harbour	6	T. F. Foley	"	25 p.c. "	May 17, 1913	
81	Welcome Pass	11½	Mrs. Lyell	"	25 p.c. "	" 17, 1913	
82	Buccaneer Bay	6	Mrs. Gills	"	25 p.c. "	Mar. 15, 1914	
83	North West Bay	4	C. C. Hunt	"	25 p.c. "	July 15, 1913	
84	Sechelt	6	C. Bradbury	Operator	85 00	May 1, 1913	
85	Gibsons Landing	15	W. W. Winn	Agent	25 p.c. commission.	" 17, 1913	
86	Keats Islands	1	H. Brown	"	25 p.c. "	" 1, 1913	
87	Tunstall Bay	3½	R. Davidson	"	25 p.c. "	" 17, 1913	
88	Snug Cove	5½	A. M. Falconer	Operator	85 00	" 1, 1914	Transferred from Union Bay.
89	White Cliff	2	Cable Landing	"			
90	North Vancouver	15½	R. H. Wendeborn	"	95 00	Oct. 1, 1913	
91	Vancouver	5	G. M. Ross	"	100 00	May 1, 1913	Transferred from Bamfield.
		116					

NOTE: The wire for 2½ miles out of Vancouver is owned by and leased from the B.C. Telephone Co.

VANCOUVER TO NEWPORT.

92	North Vancouver	0	R. H. Wendeborn	Operator	95 00	See item 90.	
93	Eagle Harbour	10	T. R. Nixon	Agent	Free Office	May 17, 1913	
94	Porteau	17	F. D. Wilson	Line Repairer	95 00	Oct. 6, 1913	
95	Britannia Beach	7	E. J. Donohue	Agent	25 p.c. commission.	Mar. 4, 1914	
96	Squamish	7½	E. S. Reeve	Operator	95 00	Oct. 1, 1913	
		41½					

SIDNEY AND SIDNEY ISLAND TELEPHONE LINE.

1	Sidney	0	B.C. Telephone Co	Agent	25 p.c. commission.	July 1, 1910	
2	Sidney Island	5	A. E. Salkell	"	25 p.c. "	June 1, 1912	Vice Mrs. B. K. Byers, resigned.

NOTE: The name of the office at Newport was changed to Squamish.

GOVERNMENT TELEGRAPH SERVICE—VANCOUVER ISLAND LINES—*Concluded.*

TOTAL NUMBER OF LINES ETC., IN OPERATION AT MARCH 31, 1914.

Lines.	Miles.	Land Lines.	Cable.	No. of Offices.	No. of Operators.	No. of Line Repairers.		Messengers.
Vancouver Island Lines:—								
Victoria—Banfield, Cape Beale Section	130	130		12	9	8		1
Branch to Wireless Station	1½	1½						
Telephone circuit to Jordan River	40	40		5	5			
Alberni—Ranfield Section	53	53		3	3	2		
Alberni—Clayoquot Section	98	96¾	1¼	9	7	5		
Sechart Branch	9½	9½					Half mile cable abandoned	
Mosquito Harbour Branch	10⅞	10¾	⅛					
Clayoquot Sound Branch	11½	11½						
Nanaimo—Comox—Campbell River Section	118	118		9	9	2		1
Cape Lazo Branch	6	6						
Parksville—Alberni Branch	30	30		1	1	2		
Denman—Hornby Island Branch	25	23	2	5	5		Repairs made locally	
Nanaimo—Gabriola Island Branch	19	18¼	¾	6	6		" "	
Campbell River—Texada—Island Section	72¼	53¾	18½	10	10	5	1 permanent, 4 make repairs when necessary	
	624¼	601½	22¾	63	55	24		2
Golden and Windermere line	89	89		5	5	1		
Salt Spring Island line	69¼	62	7¼	21	21		Repairs made locally	
Malahat—Saanich line	3½	½	3	1	1		" "	
Metchosin line	15	15					Maintained by B.C. Tel. Co.	
Chemainus—Kuper—Thetis Island	12½	7⅝	5	4	4		Repairs made locally	
Sidney and Sidney Island line	5	2½	2½	2	2		" "	
Grand total	818½	778	40½	96	88	25		2

GOVERNMENT TELEGRAPH SERVICE—*Continued.*

YUKON LINE.

Stations.	Intermediate Distance.	Position.	Salaries per Month.	Tariff from Ashcroft.	Night Rate.	Memo.
	Miles.		$ cts.			
Vancouver		J. T. Phelan, superintendent	233 33			
		Chas. Belleau, clerk	85 00			
		P. R. Quain, clerk	125 00			
		E. M. Keays, clerk	100 00			
		M. H. Wood, stenographer	60 00			
Ashcroft		C. Gooding, district supt	163 33			40 p.c. of salary paid by C.P.R.
		W. B. French, manager	125 00			" "
		R. D. Davies, day operator	85 00			" "
		W. H. Lawson, day operater	85 00			" "
		J. J. Kiely, night operator	90 00			
		L. M. Evans, clerk	60 00			
		C. Gooding, bookeeper	60 00			
Doherty's Ranch	24	Commission office	25 p.c.			
Lillooet Branch—						
Pavilion	21	"	50 p.c. T.L. tolls	50 & 3	30 & 2	
Lillooet	22	Chas. Watt, operator	85 00	"	"	
		G. S. Tosh, Lineman	75 00			$5 per month for rent, fuel and light.
Lillooet — Pioneer Mines Branch—						
Coronation		Commission office				
Fairhaven		"				
Mission Landing		"				
Seton Lake		"				
Tyanghton		"				
Dunlop		Accommodation office				
Main Line—						
Dougherty's *	24	Commission office	25 p.c. T.L. tolls	25 & 2	25 & 1	
Clinton	10	E. LeBourdais, opr. & lineman	60 00	"	"	$5 per month for rent, fuel and light.
59 Mile House *	12	Commission office	25 p.c. T.L. tolls	"	"	
70 " *	11	"	"	"	"	
74 " *	4	"	"	"	"	
83 " *	9	"	"	"	"	
100 " *	17	"	"	"	"	
105 " *	5	"	"	"	"	

115 "	10	J. Foster, opr. and lineman	85 00	"	"		
122 " *	7	Commission office	"	"	"		
134 " *	12	"	25 p.c. T.L. tolls	"	"		
141 "	7	"	"	"	"		
150 "	9	J. B. Rutledge, opr. and l'man	85 00	50 & 3	30 & 2	85 per month for rent, fuel and light.	
Bella Coola Branch—							
150 Mile House	0	See Main Line					
Williams Lake	6	Commission office	25 p. c				
Onward Ranch	2	"	"				
Borland's	9	"	"				
Four Mile Creek	12	"	"				
Bechers	16	"	"				
Hanceville	28	"	"				
Lees	4	"	"				
Alexis Creek	13	"	"				
Baylifts	19	"	"				
Chilanco Forks	32	"	"				
Tatla Lake	32	"	"				
Kluna Kluna	13	R. B. Demorest, operator	75 00				
Lowneses	31	Commission office	25 p. c				
Marvins	55	"	"				
Atnarko	7	R. E. Mosher, lineman	75 00				
Canoe Crossing	25	Commission office	25 p. c				
Bella Coola	25	Oscar Landry, operator	110 00				
Horsefly Branch—							
Harpers Camp	33	H. S. Watters, opr. & l'man	60 00	50 & 3	30 & 2	85 per month for rent, fuel and light.	
Quesnel Forks	31	Grant Grinder, opr. & lineman	66 66	"	"	" " "	
Hydraulic	25	Commission office	50 p. c. T. L. tolls	"	"		
158 Mile House *	8	"	25 p. c. T. L. tolls	"	"		
Lynes *	11	"	"	"	"		
Soda Creek	9	R. D. Lang, opr. & lineman	85 00	"	"		
Packards *	7	Commision office	25 p. c. T. L. tolls	"	"		
Roweds	12	"	"	"	"		
Anders *	4	"	"	"	"		
Moffats *	5	"	"	"	"		
Windt's *	4	"	"	"	"		
Yorstons *	3	"	"	"	"		
Shepherds *	7	"	"	"	"		
Quesnel	14	Gordon Grassett, operator	85 00	"	"	House, fuel and light, free.	
		A. C. Grassett, messenger	30 00				
Barkerville Branch—							
Lafontaine		Commission office	25 p.c. T. L. tolls				
Lockes *	13	"	"	"			
Cottonwood *	8	"	"	"			
Wing Dam *	10	"	"	"			
Stanley *	14	"	"	"			
Barkerville *	16	R. L. Murphy, opr. & lineman	60 00	"		House, fuel and light, free.	

GOVERNMENT TELEGRAPH SERVICE—*Continued.*

YUKON LINE—*Continued.*

Stations.	Intermediate Distance.	Position.	Salaries per Month.	Tariff from Ashcroft.	Night Rate.	Memo.
	Miles.		$ cts.			
Barkerville Branch—*Con.*						
Blackwater	42	D. Mitchell, operator	75 00	75 & 5		Provisions supplied.
		R. A. Gooding, lineman	70 00			" "
Bobtail Lake	37	L. R. Seldon, operator	75 00	75 & 5		" "
		G. M. Regan, lineman	70 00			" "
Nechacco	32	A. Ferland, operator	75 00	75 & 5		" "
		J. D. Charleson, lineman	70 00			" "
Fraser Fort	21	R. M. Spaulding, operator	75 00	75 & 5		$1 per day, board allowance.
		H. Worthington, lineman	70 00			" "
Stella		H. LeDuke, operator	75 00			
Burns Lake	55	S. A. Courtney, operator	75 00	1 00 & 7		Provisions supplied.
		W. A. Gow, lineman	70 00			" "
Bulkley Summit		Commission office				
South Bulkley	27	W. Mitchell, operator	75 00	1 00 & 7		" "
		W. N. Clark, lineman	70 00			" "
Govt. Ranch		Geo. Barrett, operator	75 00			
Aldermere	52	E. G. Ayliffe, operator	75 00	1 25 & 10		" "
Glentanna		Commission office				
		Henry Fink, l'man, Aldermere	70 00			" "
Telkwa	2	J. E. Lima	25 p.c. T.L. tolls	1 25 & 10		
Moricetown	28	John Muir, operator	75 00	1 25 & 10		" "
Hazelton	28	E. R. Cox, local manager	110 00	1 00 & 7		$1 per day, board allowance.
		W. E. Hasson, night operator	100 00			" "
		G. W. McKay, day operator	85 00			" "
		J. M. Kelly, day operator	85 00			" "
		R. O. Fulton, operator and clerk	100 00			
		R. O'Brien, messenger and clerk	100 00			
		J. A. Thorne, line foreman	100 00			" "
Hazelton and Prince Rupert Branch—		W. Blackstock, lineman	75 00			
New Hazelton	4	T. N. Campbell, opr. & l'man	75 00	1 00 & 7		$25 per month, board allowance.
Kitwanger	16	H. A. MacIsaac, opr. & l'man	75 00	1 25 & 10		" "
Bostroms'	14	C. S. Fuller, opr. and lineman	75 00	"		" "
Cedarvale	7	Commission office	25 p.c. T.L. tolls	"		
McHugh's	3	H. P. Large, opr. and lineman	75 00			" "
Lorne Creek	10	A. J. Morrison, opr. and l'man	75 00	"		" "

Nicholl—	10	J. C. Overbeck, "	75 00	"		" "	
Hardscrabble	10	H. S. Cunningham, opr. & l'man	75 00	"		" "	
Kitselas	10	M. C. Harrison, opr. & l'man.	80 00	"		" "	
Copper River	7	Commission office.	25 p.c. T.L. tolls	1 50 & 10			
Kitsum Kalum	8	M. R. Grimes, operator	75 00	"		" "	
		George Minchin, lineman	70 00			" "	
Terrace		John Wrathall, operator	75 00				
Stewart Branch—							
Rosswood	35	E. D. Wilson, operator	75 00	1 50 & 10		Provisions supplied.	
		T. Mart, lineman	70 00			" "	
Aivaush	32	P. R. Currie, opr. and lineman	75 00	2 00 & 15		$30 per month board allowance.	
Alice Arm	25	R. H. A. Neilson, opr. & l'man	75 00	" "		" " "	
Amyox	22	J. G. Bryden, opr. and l'man.	75 00	" "		" " "	
Stewart	57	H. B. Birch, opr.	110 00	" "			
		H. A. MacMartin, l'man.	75 00				
Hazelton & P. R. Br.—							
Graveyard Pt	15	P. V. Haygitt, opr. and l'man	75 00	1 50 & 10		$25 per month board allowance.	
Hole-in-Wall	15	C. W. Mitchell, opr. & l'man.	75 00	" "		" " "	
McLeod's	8	Wm. Inthont "	75 00	" "		" " "	(closed Mar. 12, '12).
Telegraph Point	9	V. F. Dunn "	75 00	" "		" " "	
Port Essington		G. A. Taylor, agent.	10 00				
Haysport	16	J. W. Ferguson "	75 00	" "		" " "	
Cassiar*	9	Accommodation office, Paul Wicks, lineman	80 00	" "		Telephone rental, $2 50 per month.	
North Pacific*	10	"		" "		" " "	
Inverness*	2½	"		" "		" " "	
Port Edward		Accommodation					
Prince Rupert	13½	F. W. Dowling, circuit mgr.	150 00	1 00 & 7			
		L. W. Wangh, day operator.	110 00				
		Jas. M. Kelly, night operator.	110 00				
		R. F. Pollard, lineman	100 00				
		H. McMillen, messenger	$1 per day				
Georgetown*	20	Commission office	25 p.c. T.L. tolls	1 50 & 10			
Port Simpson*	10	H. C. Flewin, agent.	30 00	" "		'Phone also installed at Port Simpson hospital; the residence of Dr. Kergin, Port Simpson, and office of Georgetown Sawmill Co.; rental, $2.50 per month.	
Main Line—							
Kispiox	16	Hugh Taylor, 25 p.c. commiss.		" "		$30 per month, board allowance.	
1st Cabin		P. E. Smith, operator.	75 00				
2nd Cabin	33	C. A. Eby, operator.	75 00	" "		Provisions supplied.	
		Allan Johnson, lineman.	70 00			" "	
3rd Cabin	25	J. Chilvers, operator	75 00	" "		" "	
		J. W. Morin, lineman	70 00			" "	
4th Cabin	20	C. L. D. Maxwell, operator	75 00	1 50 & 10		" "	
		J. Veale, lineman.	70 00			" "	
5th Cabin	20	J. J. Doré, operator	100 00	1 50 & 10		" "	
		E. L. Kelly, lineman.	$3 per day			" "	

*Telephone Offices (on composite Telegraph and Telephone line)

GOVERNMENT TELEGRAPH SERVICE—*Continued.*

YUKON LINE—*Continued.*

Stations.	Intermediate Distance.	Position.	Salaries per Month.	Tariff from Ashcroft.	Night Rate.	Memo.
			$ cts.			
Main Line—*Con.*						
6th Cabin	20	J. R. Barker, operator	100 00	1 50 & 10		Provisions supplied.
		Carl Jepson, lineman	$3 per day			" "
7th Cabin	19	W. I. Weekes, operator	100 00	1 50 & 10		" "
		W. H. Blake, lineman	$3 per day			" "
8th Cabin	19	Robert Todd, operator	100 00	1 50 & 10		" "
		A. McKay, lineman	$3 per day			" "
9th Cabin	17	G. W. Smith, operator	100 00	1 50 & 10		" "
		L. Mason, lineman	$3 per day			" "
Echo Lake	32	W. S. Simpson, jr., operator	100 00	1 50 & 10		" "
		J. Huston, lineman	$3 per day			" "
25 Mile Cabin	25	G. T. Waring, operator	100 00	1 75 & 10		" "
		C. W. Vance, lineman	$3 per day			" "
Iskoot	16	G. W. Hughes, operator	100 00	1 75 & 10		" "
		Jos. W. Makemson, lineman	$3 per day			" "
Telegraph Creek	61	A. S. Gillespie, operator	100 00	1 75 & 10		$1 per day, board allowance.
		A. J. Charleson, line foreman	150 00			" "
Shesley	45	F. N Jackson, opr. & lineman	82 50	1 75 & 10		Provisions supplied.
Nahlin	61	J. T. Pilling, operator	82 50	2 00 & 15		" "
		Andrew Johnson, lineman	75 00			" "
Nakina	49	Edward Barrett, opr. & lineman	82 50	2 00 & 15		" "
Atlin	63	A. B. Taylor, local manager	116 66	2 00 & 15		$60 per month, board allowance.
		J. B. Watson, operator	100 00			" "
Tagish, Y. T.	75	D. Allen, operator	82 50	2 25 & 15		Provisions supplied.
		B. Keeley, lineman	75 00			" "
Carcross, Y. T	18	S. E. Chambers, operator	82 50	2 25 & 15		$40 per month, board allowance.
White Horse, Y. T.	65	H. Gilchen, district supt.	210 00	2 50 & 15		
		G. S. Fleming, operator	155 00			
		Lyle Larsen, messenger	65 00			
Lower Laberge	59	G. C. Walker, opr. & lineman	82 50	2 50 & 15		Provisions supplied.
Hootalinqua	30	R. T. McDonald, opr. & l'man.	82 50	2 50 & 15		" "
Livingstone Creek Branch (Telephone Line only)—						
Mason's Landing	35	Commission Office	25 p.c. T.L. tolls	2 50 & 15		
Livingstone Creek	35	"	"	2 50 & 15		

Main Line—						
Big Salmon	34	Jas. Withrow, operator	82 50	2 50 & 15		Provisions supplied.
		Henry Brtaden, lineman	75 00			" "
Yukon Crossing	38	H. McMillan, operator	82 50	2 75 & 15		" "
		H. O. Lakken, lineman	75 00			" "
Carmacks	42	R. Young, operator	82 50	2 75 & 15		" "
Fort Selkirk	8	R. P. Hall, opr. and lineman	82 50	2 75 & 15		" "
Coffee Creek	30	O. McDonald, operator	82 50	2 75 & 15		" "
		Angus Morrison, lineman	75 00			" "
Stewart River	75	B. DeWitt, opr. and lineman	82 50	2 75 & 15		" "
Ogilvie	23	W. C. Fraser, opr. and lineman	82 50	3 00 & 20		" "
Dawson	48	Wm. Brownlow, local manager	150 00	3 00 & 20		$100 per month, board allowance.
		Geo. A. McLachlin, operator	125 00			" "
		Antiss Fraser, cashier	125 00			" "
		C. A. Couture, line foreman	125 00			" "
		C. Albert, messenger	$3 per day			
Forty Mile	55	W. Lafontaine, opr. and lineman	82 50	3 25 & 20		Provisions supplied.
International Boundary	40	Connection made here with U. S. Govt. Alaskan Line				

YUKON TARIFFS.

The rates given for points north of Quesnel are one-third less than those primarily adopted, which were calculated on the general basis of 50 cents for 100 miles and 25 cents for each additional 100 miles, counting the distance from Ashcroft.

Exceptional Rates.—Hazelton to Ashcroft 1-00 and 7, June 1, 1910; Prince Rupert to Ashcroft, 1-00 and 7, November 1, 1909.

The local rates between offices north of Quesnel are calculated on the basis of 50 cents for 100 miles and 25 cents for each additional 100 miles, and the local rates between offices north of Atlin are fixed at 50 cents for each 100 miles..

Cable Messages.—On transatlantic business, the word rate is twice as much as the additional word rate given in the list for all points north of Ashcroft-Barkerville, 3x2 = 6, Dawson 20x2 = 40c. per word.

On transpacific business the word rate is the additional word rate plus 4c.; Barkerville, 3 + 4 = 7c.; Dawson, 20 + 4 = 24c. per word to or from Ashcroft.

Press Despatches.—For the Yukon line the rate is 1 cent per word, minimum charge, $1; this applies to the whole line. Exception, Barkerville-Ashcroft section (local), minimum charge 50 cents.

Yukon system connects at boundary with U.S. Sig. Service Telegraph System.
" " Ashcroft with Canadian Pacific Railway Telegraph.
" " Blackwater with Fort George and Alberta Telephone Company.
" " Car cross with W.P. and Y.Ry. Telegraph.
" " Quesnel Forks with Quesnel Hydraulic Co.'s line to Hydraulic.

GOVERNMENT TELEGRAPH LINES: TARIFFS.

SPECIAL TARIFF.

Cable Messages.—Rates for cable messages passing over the Yukon line will be found in connection with the Yukon tariff on this page.

Elsewhere, the rate for transatlantic messages passing over the Government lines is the same as for ordinary through messages, excepting where the ordinary tariff is more than 25 cents; in such cases the Government line rate is 4 cents per word, with a minimum charge of 25 cents. For example:—

For a message of six words or less, the charge is 25 cents for Government lines.

For a message of seven words the charge is (7 x 4) 28 cents for Government lines.

For a message of twelve words the charge is (12 x 4) 48 cents for Government lines.

In every case the counting of words includes the address and signature in the same way as for transatlantic cable tolls.

Press Despatches.—The rate for press despatches on the Government lines (excepting the Yukon line), is 20 cents per 100 words; no single message less than 20 cents.

For the Yukon line the rate is 1 cent per word, minimum charge $1; this applies to the whole line. Exception, Barkerville-Ashcroft section (local), minimum charge 50 cents.

REGULAR TARIFF.

NOVA SCOTIA.

Lines in Cape Breton.

Local rate between offices 25-1*
Through rate, on business exchanged with the G.N.W. Tel. Co. to and from North Sydney transfer office 15-1

Night messages are exchanged with the Western Union Telegraph Company for offices on these lines. Rate, 1 cent per word with minimum of 15 cents. The local night rate is 1 cent per word with minimum of 25 cents.

Line from Barrington to Cape Sable—Local rate, 12-1.

Cape Sable Lighthouse ..... Through rate 12-1 from Barrington, W.U. office.
Newellton ..... " " "

This line is now operated by the local telephone company. Terms of lease provide for former telegraph rate as above not being exceeded.

NEW BRUNSWICK.

Line from Chatham to Point Escuminac.

Local rate between offices 25-1
Through rate, on business exchanged with the G.N.W. Tel. Co., to and from Chatham transfer office 15-1

Bay of Fundy.

Line from Eastport, Me., to Campobello, Grand Manan, and Whitehead Islands:—
Local rates between offices on Grand Manan and Whitehead Island, 15-1; Grand Manan and Campobello Island, 25-2; The Islands and Eastport, Me., 25-2, W.U.O.

Through rate same as local rate on business exchanged with W. U. Tel. at Eastport 25-2

QUEBEC.

Anticosti Island.

Local rate between offices 25-1
Between offices on Anticosti Island and Gaspé 50-2
Between offices on Anticosti Island and Gaspé on the North Shore St. Lawrence and Chicoutimi lines 50-2
Through rate, same as local rate on business exchanged with G.N.W. Tel. at Gaspé 50-2

Magdalen Islands.

Local rate between offices 25-1
Between offices on Magdalen Islands and offices on Government lines on Cape Breton 50-2

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* Where the tariff rate is entered as 25-1 or 25-2, etc., the meaning is that the rate is 25 cents for ten words and 1 cent or 2 cents for each additional word.

Through rate, on business exchanged with Western Union Tel. at North Sydney same as local rate 50–2

Special winter rate for letters exchanged with mail at Bay St. Lawrence, ½ cent per word. (See note in report 1906-7. p. 8.)

St. Pauls Island.

Between St. Pauls Island and offices on Government lines in Cape Breton.... 50–2

Through rate to and from North Sydney on business exchanged with the W.U. Tel.. same as local rate 50–2

North Shore St. Lawrence and Chicoutimi.

Local rate between offices within 100 miles apart 15–1

Between offices over 100 miles apart..... 25–1

Between offices on these lines and Anticosti *via* Long Point..... 50–2

Conjoint rate between offices on Government lines west of Bersimis and offices on the G.N.W. line as far as and including Quebec.

Equally divided between Company and Government lines..... 25–2

Conjoint rate between offices on Government line east of and including Bersimis and G.N.W. to Quebec (Government line, 25-1; Company's line 15) 40–2

Through rate for Government line offices west of Bersimis, to be added to G.N.W. tolls from Quebec..... 15–1

Through rate for Government line offices east of and including Bersimis, to be added to G.N.W. tolls from Quebec 25–1

NOTE.—The above lines connect with the G.N.W. Telegraph system at Chicoutimi and at Bay St. Paul and Murray Bay, but the checking of all through business exchanged with the company is done at Quebec.

Quarantine System.

Line from Quebec via Orleans Island and Isle aux Reaux.

Local rates between offices:—

Quebec and Grosse Isle 25–1

Quebec and Orleans Island and Isle Reaux 15–1

Orleans Island and Grosse Isle 25–1

Isle Reaux and Grosse Isle 15–1

On Orleans Island 15–1

Through rate same as local business exchanged with G.N.W. Tel. at Quebec.

Orleans Island Telephone System.

Local rates between offices:—

	Conversations, 3 minutes.	Messages, 20 words and 5 words.
St. Petronille and St. François and intermediate.....	5c.	5–2
Quebec exchange, St. François and intermediate.....	15c.	15–5

Through rate 5c. for Government line plus regular tolls of the Bell Telephone Co. for points beyond Quebec

Beauport-Laval Line (Telephone).

Local rate between offices:—

	Conversations, 3 minutes.	Messages, 20 words and 5 words.
Beauport and Laval and intermediate	10c.	10–3
Quebec exchange and Laval and intermediate	15c.	15–5
Through rate to be added to the Bell Telephone Company's rate beyond Quebec	10c.	10–5

NOTE.—Of these, exchange and through rates, $\frac{2}{3}$ goes to the company in each instance.

The rate of charge for telephones, aside from the commission offices, has been fixed as hereunder.

For connection within ½ mile of regular station, $9 per annum.

For each additional ½ mile of line, $4 per annum. The regular tolls being charged in addition on all main line connections.

Charlesbourg and Martineau Mills.

Line connects with Bell Telephone System at Charlesbourg.

	Conversations, 3 minutes.	Messages, 20 words and 5 words.
Local between points on the Government line	10c.	10–3
Local between points on the Government line and the Quebec Exchange	20c.	20–5
(Of this, 50 per cent belongs to the company.)		
Through between points on the Government line and points on the system of the Bell Telephone Company, to which the Company's established rates from Quebec are to be added	10c.	10–3

Timiskaming District (Telephone Line).

	Conversations, 3 minutes.	Messages, 20 words and 5 words.
Kippewa Dam—North Timiskaming and intermediate	25–5	25–5

Same rate for both local and through business, that is business exchanged with the connecting line at North Timiskaming.

ONTARIO.

Pelee Island Line (Telephone).

Local rate between offices:—

On the mainland Leamington-Point Pelee	15–1
On the island	15–1
On the island and Leamington	25–1
Through rate on business exchanged with the G.N.W. Tel. at Leamington	15–1

This line is operated by telephone in conjunction with the Bell Telephone Co. Charges for conversations being based on local tolls plus the regular tolls of the company beyond Leamington. (Local rates, 15c. or 25c. for three minutes conversation and proportionate charge for any period in excess of three minutes.)

NORTHWEST TERRITORIES—SASKATCHEWAN AND ALBERTA.

Qu'Appelle—Edmonton Line.

Local rates between offices within 12 miles apart 15-1
Between offices already reached by company's lines, excepting when the company's rate is higher 25-2
Between offices solely on Government line 35-2
Through rates, for business exchanged with the connecting companies, same as the above local rates.

Edmonton-Athabaska-Landing and Peace River Line.

Local rates between offices ..... 15-1 to 60-4
Maximum charge between offices in the two divisions above and below Edmonton 75-5
A tariff sheet was issued 1st February, 1913.

Moosejaw—Wood Mountain Line.

Local rate between offices 25-2
Through rate the same.

BRITISH COLUMBIA.

Vancouver Island Lines.

Local rates between offices 25-2
Conjoint rate between offices on Government lines and C. P. Tel. line on Vancouver Island 25-2
Through rate, business exchanged with Can. Pac. Tel. at Nanaimo and Victoria, same as local rate 25-2

Golden-Windermere Line (Telephone).

Messages.

Local and *through* rate 25-2
Subscribers for telephones at $36 per year are exempt from above tolls for messages.

Salt Spring Island, Pender Island, etc. (Telephone).

Local rate—Conversations, two minutes ..... 25c.
Each additional minute ..... 15c.
Through rate—The above line connects with the B. C. Telephone Co. at Duncan Station. The company's tolls are added to the above rates on through business.
Conjoint rate—Between offices on the above islands and offices on the C. P. line, on Government line reached by the C. P. Tel. on Vancouver Island..... 25-2

Kamloops-Okanagan Valley System (Telephone).

Local and through rates, 25c. to 60., according to distance between offices 100 miles apart and over, in stretches of 50 miles:—

Where message rate is	25c.	for 10	words,	2c.	for extra	words; convers'n	10c. p. min.
"	35c.	"	3c.	"	"	15c	"
"	40c.	"	3c.	"	"	20c	"
"	50c.	"	4c.	"	"	25c	"
"	60c.	"	4c.	"	"	30c	"

Minimum charge for messages, 25c.; for conversation, 15c.
(A tariff sheet was issued for circulation 1st January, 1912.)

APPENDICES

GOVERNMENT TELEGRAPH SERVICES

ANNUAL REPORT FOR 1913-14.

Sectional reference (1) Cape Breton lines.

(2) Bay of Fundy lines.

(3) Magadalen Islands.

(4) Anticosti Island lines.

(5) North Shore, St. Lawrence and Chicoutimi.

(6) Quarantine Telegraph system.

(7) Pelee Island system.

(8) Northwest lines.

(9) " (Inspector).

(10) British Columbia lines.

(11) Kamloops-Penticton lines.

(12) Yukon Telegraphs.

(13) Cable ship *Tyrian*.

REPORT No. 1—CAPE BRETON.

St. John, N.B., September 19, 1914.

D. H. Keeley, Esq.,
General Superintendent Government Telegraph Service,
Ottawa, Ont.

Dear Sir—I beg to submit annual report for the fiscal year ended March 31, 1914, covering the Government lines in Cape Breton, N.S., viz.:—

	Miles in operation.	Number of offices.	Number of operators.	Number of repairers and linemen.
At date of last report	782	85	85	33
Added during year	21	23	23	
Closed during year	..	2	2	1
Total	803	106	106	32

CONDITIONS GENERALLY.

The business of the whole of the Cape Breton offices shows a good increase over the previous year, and the lines reaching as they do to all the outlying points on the island are a valuable addition to the Government system, serving a section of the country where none of the regular telegraph companies would undertake to conduct business.

The lines have been well maintained throughout the year, and have for the most part been free from any protracted interruptions.

On September 1, to facilitate the patrons, a telephone was installed in the office at Inverness, thus enabling the business to be conducted in a more prompt and efficient manner.

A main battery of sixty cells was installed at Louisburg, in December, to facilitate the testing of the line between North Sydney and Gabarus.

The line between Louisburg and Mainadieu, on the mainland, as well as the lines on Scatari island were, during the year, transposed from telegraph to telephone and three additional offices opened on the mainland section.

NEW OFFICES.

Baleine, N.S., on the Louisburg-Mainadieu section, opened July 1, Henry Leahy, agent and operator, remuneration 25 per cent commission on Government line tolls without guarantee.

Big Lorraine, N.S., on the Louisburg-Mainadieu section, opened August 1, M. P. Dowd, agent and operator, remuneration 25 per cent commission on Government line tolls without guarantee.

Eel Cove, N.S., on the Meat Cove section, opened February 21, Capt. M. Smith, agent and operator, remuneration 25 per cent commission on Government line tolls without guarantee.

Gillis Lake, N.S., on Boularderie section, office reopened July 31, Peter McLean, agent and operator, remuneration 25 per cent commission on Government line tolls, guaranteed $50 per annum.

Indian Brook, N.S., on Meat Cove section, office reopened May 29, Murdock McInnis, agent and operator, remuneration 25 per cent commission on Government line tolls, guaranteed $50.

Little Lorraine, N.S., on the Mainadieu section, opened August 1, Miss Sadie Gallant, agent and operator, remuneration 25 per cent commission, Government line tolls without guarantee.

Skye Glen, N.S., on Strathlorne-Whycocomagh section, opened September 12, Mrs. Jas. H. Austin, agent and operator, remuneration 25 per cent commission Government line tolls, without guarantee.

Telephone offices opened as under:—

INVERNESS COUNTY.

Northeast Margaree—Big Interrale.—Telegraph operator, N. E. Margaree; J. M. Smith, N.E. Margaree; Donald McDiarmind, N.E. Margaree; Rod. Y. McKenzie, Big Intervale.

Whycocomagh—Little Narrows—Baddock.—Angus McLeod, Telegraph office, Whycocomagh; John D. McFadden, North Side Whycocomagh.

South West Margaree—Whycocomagh.—Telegraph Operator, S.W. Margaree; A. S. McDougall, S.W. Margaree; L. E. McKay, Postmaster, Scottsville; John J. Dunbar, North Ainslie; M. J. Kennedy, Loch Ban; David McKinnon, East Lake Ainslie.

South Ainslie—Whycocomagh.—John R. McMillan, South Lake; Daniel McNeil, Ainslie Glen; D. H. McDonald, Stewartdale; Aenas McKinnon, Iron Mines; J. E. McFarlane (I.C.R. Agent), Orangedale.

All the above receive a commission of 25 per cent of Government line tolls, without guarantee.

OFFICES CLOSED.

Balls Creek, on North Sydney-Sydney section, H. A. Ball, agent and operator, commission 25 per cent of Government Line tolls, without guarantee, closed April 1 on account of inattention and carelessness in management.

Capsticks, on Meat Cove section, J. W. Capsticks, agent and operator, 25 per cent Government Line tolls, guaranteed $50 per year, closed October 25, on instructions from department.

CHANGE OF AGENTS.

Baddeck, on Englishtown loop, Mrs. L. M. Anderson, agent and operator, superseded October 11 by David Dunlop; no change in remuneration, viz., $150 per annum and 25 per cent commission on Government Line tolls.

East Bay, on Boularderie section, M. McNeil, resigned; John McNeil appointed agent and operator, July 15; no change in remuneration, viz., 25 per cent of Government Line tolls, guaranteed $50 per annum.

River Bourgeois, on Hawkesbury-Gabarus section, office transferred August 30 to Miss K. F. Fougere, *vice* Angus Boyd, resigned; remuneration 25 per cent Government Line tolls, guaranteed $50.

Rockdale, on Hawkesbury-Gabarus section, office transferred April 28 to Frederick W. Lafford, *vice* D. B. Pottie, removed; remuneration 25 per cent Government Line tolls, without guarantee.

Whycocomagh, on Strathlorne-Whycocomagh section, office transferred January 31 to Angus McLeod, *vice* D. J. Ross, removed; remuneration 25 per cent Government Line tolls, guaranteed $50 per annum.

CONSTRUCTION.

Under this heading, during the year the line between Baddeck, Nyanza and Rossville, distance 21 miles, was completed.

GENERAL REPAIRS.

Big Bras d'Or; Meat Cove and Englishtown Loop section, in charge of Jas. G. Dunlop of Baddeck. During the year the line between Baddeck and Englishtown, being in bad shape, it was given a general overhauling, and 691 new poles were set; 1382 old poles reset, tamped and banked. This line was also furnished with new brackets where necessary, 1½ mile of worn out rusted wire cut out, and bushes cut along the entire route. From Englishtown to Big Bras d'Or, 12 new poles were set and the line overhauled generally. From Englishtown to Ingonish, 30 new poles were set; 130 poles reset; broken glass; defective brackets and braces renewed, also one mile of rusty wire cut out and replaced with new wire No. 6 gauge. North Ingonish to Meat Cove section was gone over thoroughly; 15 new poles set and the line generally straightened up and put in as good shape as possible to withstand the winter. It is proposed in the near future to rebuild the section between Ingonish and Englishtown, as that piece of the line is now unsafe on account of age.

Boularderie line, in charge of Joseph Logue, North Sydney. On this section during the year 59 days were spent on general repair work; 20 new poles being set; 37 braces, 107 anchors placed; 840 ploles straightened; 1810 poles tamped and banked. There were some heavy bushes along this route, which have all been cleared away, so as not to interfere with the line. The general repairing on the North Sydney and Big Bras d'Or section occupied twelve days; 4 new poles were set; 27 braces and anchors placed; 85 poles reset; 300 poles straightened. North Sydney and Sydney; time occupied was 25½ days; 19 new poles being set; 12 braces and 20 anchors were placed; 210 poles reset; 240 poles straightened. This section of the line is about done and it will be necessary to take into consideration the matter of reconstructions as early as practicable.

Hawkesbury and St. Peters section, in charge of Murdock McRae, St. Peters. As it was proposed to renew all the defective poles on this section during the next year, nothing more than sufficient work to keep the line up during the winter was done; 99 new poles being set; 236 poles reset; 287 straightened; all glass and defective brackets renewed, and considerable bushing done where the trees interfered with the line.

Hawkesbury and Inverness section, in charge of J. F. McMillan, Port Hastings. General repairs were chiefly conducted on this section on the Strathlorne and Whycocomagh branch; 494 new poles were set; all broken insulators and defective brackets replaced; poles set and straightened where necessary, bushes cut and cleared, and line put in first class shape. The section on the main line between Port Hastings and Inverness was also given consideration in so far as resetting and straightening poles. This section having been carefully gone over the previous year when 1,098 new poles were put in.

Inverness and Meat Cove section, in charge of P. A. Doyle, General Repairer at Meat Cove. The section between Margaree Harbour and Eastern Harbour received particular attention, as the line was in bad shape, due to heavy frost of the previous winter, all poles were reset and straightened for a distance of 18 miles. From Eastern Harbour north, the line over the mountain was in bad shape, and it was necessary to rebuild approximately eight miles, covering the section between Halfway Shanty and

Pollets Cove. The work on this piece was very rough, there being nothing but a foot path, making the work difficult in distributing poles and material. Between Pollets Cove and Meat Cove, the line was thoroughly bushed out; poles reset and straightened, and placed in as safe a position as possible to withstand the winter.

Sydney and Scatari section, in charge of D. S. Hooper, General Repairer, at Louisburg. The section on the mainland as well as on Scatari Island, was taken in hand during the early part of June and repairs continued until the end of October; 89 new poles being set; 310 poles reset; 460 poles straightened; besides cutting out all bushes and replacing defective glass and brackets.

CHANGES IN SECTION REPAIRERS.

Malcolm Campbell, Englishtown, covering the section between Englishtown and Big Bras d'Or, salary $60 per annum, resigned, effective March 31. No appointment made up to close of year.

John Smith, Indian Brook, covering the Murray Loop section, died July 15, salary $60 per year. Philip McLean of Tarbot appointed, same salary from September 15.

Michael Boudreau, Eastern Harbour, covering the section between Grand Etang and Cheticamp, salary $40 per year. This person takes the place of Jos. L. Chaisson who resigned last year.

GENERAL NOTES.

On May 1 the location of the Gabarus office was changed from the premises of late James Hardy to that of John Grant. No change in rental, which remains at $75 per annum for operating and battery room space.

Respectfully submitted,

D. C. DAWSON,
Superintendent.

REPORT No. 2.—BAY OF FUNDY.

FLAGGS COVE, GRAND MANAN, N.B., September 16, 1914.

D. H. KEELEY, Esq.,
General Superintendent, Government Telegraphs,
Ottawa, Canada.

DEAR SIR,—I beg to submit my report on the Government Telegraph and Telephone lines of the Bay of Fundy system for the year March 31, 1913, to March 31, 1914.

The telegraph line from Seal Cove to Flaggs Cove has been in commission throughout the year, with the exception of one or two crosses during high winds; these were cleared promptly and the line is working well; but needs some new wire inserted at various places where it is badly rusted. The several offices are in their usual good order.

The first interruption to occur was on the Flaggs Cove—Eastport cable line which was caused by a tree falling and breaking the wire a mile or so from Herring Cove on Campobello; but repairer Parker at Welchpool had the line working again within a few hours; this was on the 9th of December, 1913. A few days later, on the 13th the line went bad again. Applying test at Long Eddy and Herring Cove I found the cable to be broken two and three quarter miles off the Herring Cove shore, and wired headquarters to that effect.

On the 9th January, 1914, Mr. MacDonald, on arrival of *Tyrian* at Seal Cove, called asking that I go aboard and on the 10th we sailed to pick up the broken cable; but on account of a heavy snow storm and rough sea we had to make harbour at Welchpool; and it was not until the 15th that the cable was mended and has given satisfaction up to the present time with the exception of the usual annoyance caused by the induction from the arc-light circuits in Eastport. The remedy is obvious.

The White Head Grand Harbour telephone line has had a few interruptions caused chiefly by crosses although in one or two instances the arresters were badly fused by lightning but the line was quickly cleared, and at the present time is in good working order and entirely satisfactory. The poles have been righted where that was needed and the line overhauled generally by lineman Gilmore.

Regarding the Southern Head Seal Cove telephone line and its cabled branch to Gannet Rock, I have to report that the unintelligent use to which the whole line is put has been the principal cause of the various interruptions which have occurred during the year; the only exception being that a high wind and heavy sea parted the Gannet Rock cable on the rough ledges at Gannet Rock on the 2nd of May 1914 and grounded the entire line which was out of commission until 9th May when the *Tyrian* arrived and repaired the damage. I had Mr. Gilmore go over the land connections clearing out trees and repairing in general during the month of March, 1914; it is giving satisfaction at the present, but it is crowded.

If the department thinks it advisable to appoint a permanent operator at Seal Cove to operate a switchboard, upon receipt of advice I will construct such a board and split this line bringing each of its branches to a "drop."

In the interest of the Department of Marine and Fisheries, the telephone on the South Head line held by Mr. Turner Ingalls has been transferred to the residence of the coxwain of the life saving station.

Appended is the tabulated statement of offices revised and amended to date.

I remain, sir, your obedient servant,

J. R. PARKER,
District Superintendent.

REPORT No. 3.—MAGDALEN ISLANDS.

OFFICE OF THE DISTRICT SUPERINTENDENT.

GRINDSTONE, MAGDALEN ISLANDS, April 15, 1914.

D. H. KEELEY, Esq.,
General Superintendent Government Telegraph Service,
Ottawa, Ontario.

DEAR SIR,—I beg to submit my annual report for the fiscal year ending March 31, 1914.

On April 20, the Meat Cove cable was interrupted but was repaired and made to work O. K. April 25, by men of the ss. *Tyrian*, the cable being found broken on the Cape Breton side.

On May 7, a new office was opened at Grand Entry point at Mr. T. Larades. A telephone set was put up as decided by department, it was made to connect with Grand Entry village at Mrs. Aitkens' where another phone was placed, but upon the intallation of a general telephone system on the islands it became as well as the Grand Entry loop line connected with the main line altogether.

On May 8, the ss. *Tyrian* came to repair the Entry Island cable, a good circuit was established on the 16th. The people of this island (which is about 10 miles from the other islands) were very glad to have this only means of communication restored, it

was interrupted in August of the preceding year by the dredge in Amherst harbour, for the reason that the shore end which was the interfering part, was laid around the harbour and as a result a land line about a mile long was constructed by lineman Renaud from where the Entry Island cable landed at Amherst harbour to the main line, that is to say at Miss Shea's office. We used all the cedar posts we had on hand and had to get a few spruce ones to complete the work. This line was in good operation May 31st.

On May 16 the Bryon Island cable was repaired, this cable had been broken since November, 1911, at which time the ss. *Tyrian* came to repair it, but owing to extremely bad weather, the poor condition of the ship to stand such a severe test, etc., the cable could not be picked up then; the following year the ss. *Tyrian* undergoing repairs for the most part of the season, this cable could not be attended before last spring. At this time Mr. McDonald left us after giving us the benefit of using all our cables-successfully.

I beg to say that Bryon island is one of the islands' main fishing ground, where lobster, mackerel and codfish abound. Large numbers from all parts of the Magdalen islands gather there, crossing over to start with seal hunting in the latter part of February and all of March, then to begiu fishing until advanced in October. The cable affords the only means of communication with the rest of the islands as well as the rest of the world and it is useless to say how glad they were to have the connection restored.

On May 21, as the material, telephones boxes, etc., came to hand operations began to convert the telegraph system into a single line telephone system as decided by the Department, upon instructions of April 23. The Magdalen islands offices were equipped with telephones, the complete installation of which took place towards the latter end of June.

The public, as a whole, favour this new system while business people solicit central offices or an additional telegraph line, the deficiency is that the traffic is not secret with the present system.

At Grosse Isle there is a telegraph connection to Meat Cove (our mainland office) and it is at Grosse Isle that local government messages are handled or rather phoned and repeated from there by telegraph to Meat Cove.

The Marconi Wireless Company has a station at Grindstone, about a mile from my office, which connects with our local offices by telephone connection, which is joined to the main line, it has been in operation for a couple of years and is kept open the year round. A great deal of local business is handled by them. Some people prefer to do business with their system, although advantages are not greater than by the Government lines.

On October 30 a new office was opened at the residence of Father Turbide, the parish priest at House Harbour, to be operated on commission.

On November 1st, I regretted to hear the Bryon Island cable was broken again but luckily the *Tyrian* came, and Mr. McDonald, through strong attempts, succeeded in repairing it and it has been working well to the close of the fiscal year.

The Grand Entry Village office held by Mrs. Aitkens this past 30 years was closed this winter. Before leaving the office Mrs. Aitkens notified me she was compelled to winter on the mainland. The traffic is dull in winter and Grand Entry Point office, which is in proximity, has handled the business done this winter.

On December 23, a new office was opened at Mr. Azade Arseneau's, Grand Ruisseau, operated on commisson of 25 per cent.

I remain

Your humble servant,

A. LE BOURDAIS,
District Superintendent.

REPORT No. 4—ANTICOSTI ISLAND.

West Point of Anticosti, April 6, 1914.

D. H. Keeley, Esq.,
General Superintendent Government Telegraph Service,
Ottawa.

Dear Sir,—I beg leave to submit my annual report for the year ending March 31, 1914.

We have no additional mileage since my last report and I can only repeat myself as to the repairers' duties. The travelling on the whole length of the line is extremely dangerous at certain times of the year and consequently we have to pay high to an assistant to accompany the repairer.

I am pleased to say that our land line has been in good working order the whole year round with the exception of a ten day interruption between South and Heath Points last fall. The weather was so very rough then that the repairer could not possibly travel.

The number of telegraph offices is the same as reported in my last report, viz., eight, and Fox Bay office in communication during summer season by phone.

Both Gaspé and North Shore cables which were interrupted all last winter (1912 and 1913) were repaired last May by the staff of cable ship *Tyrian*.

The Gaspé cable is working well since, but I regret to say that the North Shore cable has been interrupted and is still so since last January.

I beg leave to call your attention to the fact that this island is becoming more important every year by the tremendous push Mr. Menier is giving it and by the enormous amount of money spent yearly. Therefore would it not be wise to erect a wireless station either at West Point or at Ellis Bay where operators would be kept the year round. In my opinion the first named would be by far the most convenient place.

The whole humbly submitted.

I have the honour to be, sir,

Your obedient servant,

ALF. MALOUIN,
District Superintendent.

REPORT No. 5—NORTH SHORE, ST. LAWRENCE AND CHICOUTIMI DISTRICTS AND QUEBEC COUNTY LINES.

Quebec, May 27, 1914.

D. H. Keeley, Esq.,
General Superintendent Government Telegraph Service,
Ottawa, Ont.

Dear Sir,—Herewith I submit my report of the lines in my charge, for the year ending March 31, 1914, with lists of all stations and employees, and remain,

Your obedient servant,

E. POPE,
Superintendent.

NORTH SHORE ST. LAWRENCE GENERALLY.

The business of the whole North Shore system for the year shows a slight falling off, owing partly to the dullness in general business, and partly to the competition of the telephone in certain sections.

The lines have been kept in good working condition, and no serious interruptions have occurred.

NORTH SHORE WEST AND CHICOUTIMI.

In addition to the usual maintenance work done by the regular repairers, the Chicoutimi and Peribonka line was almost entirely rebuilt between Peribonka and St. Charles Boromée, cedar poles being substituted for the spruce poles used in the first construction.

The work was done under the supervision of lineman Verreault, and will be continued during the coming season.

Linemen Brisson and Graval carried out a similar work on the Chicoutimi-Tadoussac line, and put in cedar poles on a section of thirty-five miles.

CHANGES.

April, 1913. St. Henri de Taillon closed on resignation of H. Boivin. La Galette closed on resignation of Jos. Ouelette.

May, 1913. S. Henri de Taillon reopened, Paschal Boivin agent.

July, 1913. Guay, Jos. Demenles replaced by Simeon Beaudreault as agent. St. Agnes reopened, Juste Pilote agent. La Galette reopened, Toussaint Girard agent.

November, 1913. Shipshaw North, Jos. Noel replaced Jos. Murdoch as agent.

LAVAL TELEPHONE LINE.

Four additional public stations were opened on this line during the year. Ste. Therese North, J. Auclair, agent; St. Michael Beauport, Ismael Maheux, agent; Monument Route, L. E. Binet, agent; Beauport, Jos. Marcoux, agent. The last named station has been closed.

CHARLESBOURG AND MARTINEAU MILLS TELEPHONE LINE.

This line was opened for business with stations at Stoneham and Martineau Mills; and during the year, branch connections were made to Tewkesbury, Lake Beauport, Lake St. Charles, St. Gerard, and other points in Quebec County where no accommodation previously existed.

A full list of the present connections will be found in the list of stations given elsewhere.

ESCUMINAC, N.B., AND CHATHAM, N.B., TELEPHONE LINE.

This line which was first worked as a telegraph circuit, and afterwards as a joint telegraph and telephone circuit, was this year made a telephone circuit solely, with a connection to the Telephone Exchange at Chatham, and several additional offices were opened.

A full list of all the stations will be found under the proper heading.

REPORT No. 6.—NORTH SHORE ST. LAWRENCE, EAST OF BERSIMIS.

OFFICE OF THE DISTRICT SUPERINTENDENT.

LONG POINT OF MINGAN, QUEBEC, April 8, 1914.

D. H. KEELEY, Esq.,
General Superintendent Government Telegraph Service,
Ottawa.

DEAR SIR,—I herewith submit to you my report of the Government North Shore telegraph line, from Bersimis eastward to Chateau bay, from June 10, 1913, and ending March 31, 1914.

I fell sick on March 5, 1912, and on June 25 I was granted complete leave of absence, Mr. A. Maloney, operator at Bersimis, temporarily acting as district superintendent during my absence.

I retook charge of Bersimis-Chateau bay district on June 10, 1913.

The overhauling, clearance of line, etc., have been more extensive last summer than during several years past.

Poles, braces, camps, bridges, shelter huts, barges, canoes, etc., have been renewed or repaired from Bersimis to Chateau bay, a distance of 914 miles as follows: Clearance of line, 75 miles long, average width 50 feet, new poles cut and renewed 523.

BRIDGES.

One bridge built at Trout river, 62 feet long.
One bridge built in Manitou Portage, 34 feet long.
One wire bridge at Pigou river, 67 feet long.
One wire bridge at Magpie river, 110 feet long.

NEW OFFICES, OFFICE CHANGES.

July 22.—Reopening of Betchouan office, operator and section repairer, Alfred Desjardins at $212 per year.

August 13.—Reopening for summer of Chateau Bay office by operator John Bolger at the rate of $35 per month.

September 18.—Miss Philomene Poulin operator at May Islands resigned and reopening of that office on same date by Arger Lebel at $25 per year.

October—From 2nd to 21st repairs made of Long Point of Mingan repeating office.

October 16—Closing of Blanc Sablon office for the winter.

October 27—Closing of Chateau Bay office until next summer.

December 26—Opening between Mistassini and Godbout, of St. Nicholas accommodation office, Rosario Bouchard agent operator. No remuneration.

January 6, 1914.—Long Point Anticosti cable became interrupted.

March 13, 1914.—John Chevalier section line repairer at Beane-Esperance office, deceased.

March 31, 1914.—Instructions given to Division Inspector Clovis Vigneault to go down without delay to Trout River for the immediate opening of Matawek accommodation office in Mr. Copley Amory's house. The agent operator will be Madam André Hamilton. No remuneration paid by the department.

Number of agents, operators, and assistant operators.....	90
Division inspectors in charge of about 200 miles each from Point des Monts to Chateau Bay	4
Section repairers from Betchouan to Red Bay.....	21
Section repairers from Bersimis to Point des Monts.....	5
	120

Corrections made for this year in tabular statements which are appended to the General Report for last year.

July 22, 1911.—For Caribou Islands read: Joseph Chouinard operator, 25 per cent commission.

July 22, 1911.—For Egg Islands read: Mrs. Elzéar Chouinard accommodation telephone only with Pentecost office. No commission paid.

July 22, 1913.—For Betchouau read: Alfred Desjardins opr.-rpr. at $212 per year.

October 20, 1911.—For Natashquan read: Walter Vigneault operator. 50 per cent commission.

August 24, 1912.—For St. Augustin read: J. C. Johnson opr.-rpr. at $212 per year.

Timber cut on Seiguiory of Mingau, from Thunder River to Cape Cormorin in 1913, 76 telegraph poles of 20 feet long, 88 pieces of 8 feet long. From Thunder River to Aguanus, 199 telegraph poles, 2,010 trees, and 57 braces.

Respectfully submitted,

I am sir, your obedient servant,

E. H. TETU,
District Superintendent.

REPORT No. 7—QUARANTINE LINES.

St. Jean, I.O., March 31, 1914.

D. H. Keeley, Esq.,
General Superintendent,
Ottawa.

Sir,—I have the honour to submit my annual report for the year ending March 31, 1914.

In December, 1912, and January, 1913, the telephone cables at Ange Gardien, St. Pierre I.O., were carried away by the ice, we then connected the telephone wire to the telegraph cable with a transformer at Ange Gardien which permitted us to have telephone service during the winter of 1912-13. These two cables were repaired in May, 1913. One of the telephone cables was broken again on October 16, 1913, and repaired on the 18th of the same month. The Grosse Isle-Crane Island cable was broken in three places in December, 1912, and was repaired in May, 1913, the work being completed on May 29.

On October 5, 1913, the St. François-Ile aux Reaux cable was interrupted, repairs were completed on October 12.

The Crane Island-Montmagny cable was taken up in November, 1912, and relaid on May 2, 1913.

In September, 1913, a telephone line was constructed from Crane Island to the east end of Goose Island, distance 10 miles, connecting with the Crane Island-Montmagny line. 25 foot cedar poles and No. 6 wire were used in construction. Four stations were established on Goose Island, all accommodation.

In November, 1913, two new connections were made at Crane Island, C. P. Roy and Joseph Lemieux with accommodation. In October, 1913, a special wire was strung, connecting the Grosse Isle-Crane Island cable, north side Crane Island with the Crane Island-Montmagny cable, giving direct and satisfactory service between the Quarantine station at Grosse Isle and Quebec. As in the previous year the Crane Island-Montmagny cable was raised on November 21, 1913, and placed in security for the winter.

On March 1 and 2, Orleans Island was swept by a violent storm which caused much damage to our lines, poles and wire were prostrated in St. Laurent, St. Petronille and Ste. Famille, repairs were completed on October 5. Apart from those interruptions the lines worked satisfactorily throughout the year.

I beg to enclose complete list of offices, agents, lines, etc.

I remain

Your obedient servant,

J. P. POULIOT,
District Superintendent.

REPORT No. 8.—ONTARIO.

LEAMINGTON, ONT., April 8, 1914.

D. H. KEELEY, Esq.,
General Superintendent Government Telegraph Service,
Ottawa, Ontario.

DEAR SIR,—In the matter of the Pelee Island telephone system from March 31, 1913, to March 31, 1914, I beg to report as follows:—

1. Last summer we had to shift about a mile of the line on the island near the North Point lighthouse as it had been washed out by the high water and gales from the west and northwest. We erected the poles from the lighthouse south along the dyke which was thrown up a few years ago east of the former location of the line taking twenty poles from Leamington to supply in place of those which had been swept away.

During the erection of the municipal system on the island and especially during September and October, the working of the line was considerably interfered with by cross wires, brush carelessly thrown on the wire, and other obstructions which grounded the line.

On October 15, connection between our office at Leamington and the cable was connected up with their system; afterward communication with this office was restored cut off near the cable landing on the mainland by the Bell Telephone Company and the cable was connected up with their system; afterward communication with this office was restored by them from October 25 until November 4, when they finally cut us off.

2. In the storm of November 9 the cable was broken, but I received no intimation of trouble until informed by the Bell Telephone Company on November 20 that the cable was not working. I immediately telegraphed the department and, under instructions from the department, and consulting with Dr. Park, went out and tried to repair; the weather was very rough and delayed us considerably. We found the cable broken in three separate places, each about a mile apart, where vessels had dragged their anchors through it, straining and damaging all splices for a distance of about 4 miles the two outer breaks being over 2 miles apart and from 8 to 10 miles from the mainland. As the main damage was where the cable had been badly used by the ice shoves of a few years ago there are a number of short pieces of cable in that section and as

I had not sufficient good cable on hand to make the repairs necessary and replace some of the short pieces with a longer piece, in my reports of December 20 and 27 I stated it would be best to have not less than a mile of new cable to replace some of the short sections and save time in repairing.

3. The line to Point Pelee is in good order but will require a few new poles to replace some of the old ones which are rather tender, as was evidenced in a heavy sleet storm this last winter when several gave way and had to be replaced by new ones, of which I have a sufficient supply on hand.

The instrument for the life saving station will be placed as soon as the crew resume duty this spring; the building was not occupied by them last winter but we had the poles set up and everything is ready for installation of instrument.

I herewith submit a list of offices and operators or agents, with summary of messages from March 31, 1913, to March 31, 1914.

Yours most respectfully,

JOHN McR. SELKIRK,
District Superintendent.

REPORT No. 9.—NORTHWEST LINES.

EDMONTON, ALTA., April 15, 1914.

D. H. KEELEY, Esq.,
General Superintendent.
Ottawa.

DEAR SIR,—I beg herewith to submit my annual report on the northwest lines, covering conditions, repairs, construction, and changes in staff up to March 31, 1914.

CONDITIONS GENERALLY.

During the past year interruptions were infrequent, the lines, as a whole, being kept in good working order. The sections between Athabaska and Grouard have given the most trouble. These sections are heavily timbered, and fierce fires have swept through the whole district; while killing the trees left many of them standing, but in a weakened condition, so that whenever a strong wind blows many trees are blown on the wire. Lineman Parry, of Mirror Landing, with two men, bushed and cleared a portion of this section in the fall at an expenditure of $131. There should be an appropriation of $500 made available for clearing the trees from the right of way along that section. During the past summer the northern district was visited by extremely heavy rains, causing the Lesser Slave lake to overflow its banks and flood that portion of our line between Sawridge and Grouard. This, with the trouble caused by the E. D. & B. C. railway while clearing their right of way along the south bank of Lesser Slave lake, gave our linemen a great deal of extra work. However, with the exception of one week's interruption in July, due to the floods, there was no serious delay to business. Between Qu'Appelle and Edmonton, considerable work was done in shifting our line from the fields to the highway but there is still a large amount of this work to be done. Requests to this effect are coming in from all points. It is the intention to carry on this work as soon as funds are available. During the year some construction work was done and some buildings erected, details of which follow. The revenue for 1912-13 showed an increase over the previous year of $8,843.41, or about 43 per cent. The year just closed shows an increase of $10,054.15 or about 40 per cent over the year 1912-13. Owing to the continually increasing business in my office I have been unable to make a complete trip of inspection during the past four years. Our lines now cover 1,887 miles and an inspection trip would necessarily take up considerable time.

CONSTRUCTION.

Athabaska-Fort McMurray Line.—During the year poles were erected and wire strung for a distance of 57 miles commencing at Athabaska to a point known as Duncan creek. The appropriation being exhausted the work was closed down for the season. Foreman E. D. Currier reports : an additional 20 miles of right of way cleared. There is on hand sufficient sideblocks and insulators to complete the line to Fort McMurray. There is also approximately 40 miles of wire on hand. The total expenditure for the year was $7,700.

Battleford-Isle La Crosse Line.—No construction work was carried on during the year just closed, but some repairs were made, material purchased and delivered at Green lake; also poles contracted for from Green lake to Isle La Crosse, a distance of 110 miles, the poles are now being distributed. The work of construction will be proceeded with as soon as money is available. The total expenditure was $3,894.54.

Grouard-High Prairie Line.—This line was constructed for a distance of 25 miles in 1912-13. During the year just closed 12 miles of line were added, and six telephones installed, the following parties being supplied with telephone connection: S. Harris, O. D. Hill, G. Martin, J. Bennie, L. Becker, and W. Lesage. The total expenditure for the year was $1,101.50.

Assiniboia Reserve-Sintaluta Line.—An appropriation was made for a telephone line to be constructed between Assiniboia reserve and Sintaluta, a distance of 8 miles. This line is for the use of the Department of Indian Affairs exclusively. It was constructed at an expenditure of $1,290.14.

Shifting Lines Generally.—An appropriation was voted for the changing of line from fields to the highway between Qu'Appelle and Edmonton. Forty-two and one-half miles were changed in the more settled districts during the year. There is on hand a considerable number of poles at different points to continue this work as soon as funds are available.

BUILDINGS.

Battleford.—A new office-building was erected at Battleford at a contract price of $6,250.

Grouard.—An office-dwelling and stable was erected in 1912-13, but not fully completed. During the year just passed $412.40 was expended to complete it.

Sawridge.—During the year 1912-13 a stable was erected and some lumber purchased toward the building of an office-dwelling. During the year 1913-14 $690 was expended to complete the buildings.

Glaslyn.—An office-dwelling and stable was erected at a cost of $1,939.85.

Meadow lake.—An office-dwelling and stable was erected at an expenditure of $1,971.40. There is still some finishing work to be done before the building is fully completed which will cost approximately $200.

Green lake.—An office-dwelling and stable have been erected at an expenditure of $1,967.05. These buildings will require a further expenditure of about $200 before being completed.

St. Paul de Metis.—A lot was purchased and an office-dwelling erected at a total cost of $3,693. The building is centrally located and has a furnace installed and is satisfactory in every way.

Athabaska.—A stable was erected at a cost of $500.

REPAIRS.

Onion Lake.—A new kitchen was built on to the office-dwelling at Onion Lake at a cost of $350.

Willow Bunch.—Repairs were made to the office-dwelling at Willow Bunch at an expenditure of $650.

South Humboldt.—A furnace was installed in our office-dwelling at South Humboldt at a cost of $715. This has proved a very satisfactory acquisition to the building.

SUMMARY.

Salaries, April 1913 to March 31, 1914	$54,556 30
Blacksmithing	402 75
Postage	152 13
Light	310 72
Fuel	2,183 06
Repairing line	1,092 25
Rents	4,513 68
Horse Hire	203 50
Sundries	8,238 13
Horse feed	3,966 40
	$75,618 92

I have the honour to be, sir,

Your obedient servant,

R. C. MACDONALD,
District Superintendent.

REPORT No. 10.—NORTH WEST LINES.

EDMONTON, ALTA., April 20, 1914.

D. H. KELLEY, Esq.,
General Superintendent,
Ottawa.

DEAR SIR,—I beg to submit herewith a report covering the lines in my inspectorate for the fiscal year ending March 31, 1914.

QU'APPELLE-EDMONTON SECTION.

No serious interruptions occurred on this line during the past year. The work of removing the line from farms to the highways was continued, preference being given to those districts where the necessity was greatest. This work will have to be continued until the task is completed. Practically all the farm land in this district has now been put under cultivation, and the farmers are pressing for the removal of the poles which obstruct their harvesting operations.

BUILDINGS.

St. Paul de Metis.—An excellent office-dwelling was erected at St. Paul de Metis by the service at a cost of $3,693.

Battleford.—A fine building, modern in all respects, was erected at Battleford at a cost of $6,250.

At South Humboldt a furnace was installed, and at Onion Lake a kitchen was built, both improvements adding to the comfort and value of the buildings.

Some few changes were made in the staff, due to resignations, but the majority of the employees on this line have been with the service for many years, and I find that books are kept satisfactorily, and returns forwarded promptly.

WOOD MOUNTAIN LINE.

During the summer of 1913 some interruptions were caused on this line between Expanse and Limerick by workmen engaged in building the C. N. R., which parallels our line for some 12 miles. On the completion of this work all trouble ceased. I had occasion during the year to make trips to Expanse and Gravelbourg to investigate complaints with regard to which satisfactory explanations were forthcoming. The volume of business on this line has decreased somewhat as compared with the previous year, but the importance of the line, particularly as regards police purposes, is as great as ever.

Necessary repairs were made to our office-dwelling at Willow Bunch.

EDMONTON-LAKE SASKATOON SECTION.

With an ever-increasing volume of business this line has satisfactorily met all demands upon it, there having been but one serious interruption during the year. Owing to the comparative slowness in transportation of the mails, the wire has become absolutely necessary for business. It would be impossible to emphasise too strongly the importance of the line and the consequent necessity for keeping it in thorough repair. Along some portions of the route, particularly between Athabaska Landing and Grouard, the line passes through stretches of partly burned timber, which in falling may do considerable damage. It would therefore be advisable to send a gang of men over this at the proper season to cut down such trees as threaten the safety of the line.

Because of the amount of business done it is absolutely necessary that none but first-class operators be employed on this division, otherwise it would not be possible to handle all messages offered. This condition has been fairly well met, but as other telegraph companies offer higher salaries than are paid by the Government, it is difficult to retain the services of the best men. The result is that changes of staff are frequent, in this respect being in marked contrast to the conditions obtaining on other sections.

BATTLEFORD-ISLE LA CROSSE LINE.

This line was completed from Battleford to Green Lake—185 miles—in 1913, and poles are now being taken out to complete it to Isle La Crosse, a further distance of 110 miles.

While this district is not opening up in the manner of the Peace River country, yet many settlers are going in, and to these the line is invaluable. During the year office-dwellings were erected at Glaslyn, Meadow Lake and Green Lake at a cost of approximately $2,000 each. A new building will be required at Isle La Crosse upon the completion of the line, and probably one at an intermediate point.

ST. PAUL-DURLINGVILLE LINE.

The office at Durlingville has been closed. An office has been opened at Bonnyville, 5 miles west of Durlingville. The line, while not producing much revenue, is of great value to the settlers.

ATHABASKA-FORT McMURRAY LINE.

This line, which is being constructed under direction of Mr. E. D. Currier, is reported as finished to Duncans Creek, a point 57 miles north of Athabaska landing.

SINTALUTA-ASSINIBOIA RESERVE.

This line, 8 miles in length, was built for the use of the Indian Department. The Indian agent wished to make connection at Sintaluta with the Provincial Government telephone system, and this was left for him to arrange through his own Department.

DUCK LAKE-BATOCHE LINE.

Arrangements have been made for the re-opening of this line, which has been closed since the resignation of the former agent, D. H. Grant, of Batoche. Mr. John Kusch will act as agent at that point.

SOUTHERN BRITISH COLUMBIA LINES.

My annual trip of inspection of these lines was made in September, shortly after the death of Superintendent Palmer, of Kamloops. At this time the change in policy of the administration was being effected, and there was more or less confusion during the period of transition. On the lines radiating from Kamloops, I found that immediate repairs were imperative between Nicola and Penticton, Kelowna and Vernon, and on the North Thompson line. After communicating with you, I arranged for repairs sufficient to carry the lines through the coming winter. The Golden line was also in bad condition, but general Superintendent Phelan had this matter in hand.

The sections of the line which I have mentioned, as reported to you on my return, will have to be rebuilt practically in entirety, this season, as the great majority of the poles are rotten and are too short to be again reset. The lines on Vancouver island were working well. The usual amount of repoling necessary each year will be required.

NAKUSP-EDGEWOOD LINE.

At the time of my visit, this line was down and I made arrangements to send a small gang over it and put it in working order. This line is a great convenience to settlers along the lake, particularly during the winter season. It has always been found very difficult to obtain the monthly revenue returns from many of the telephone agents. I found that in some cases these returns had to be made out in the district superintendent's office. There does not appear to be any way in which this difficulty can be overcome, as in many cases the agents are indifferent as to whether they retain the office, and it is not always easy to find substitutes.

The feature of the year has been the rapid and continuous expansion of the territory north of Edmonton, particularly that large section vaguely defined as the Peace River country. To this district settlers are flocking in ever-increasing numbers and the indications are that the volume of immigration this year will be greater than ever before. As a factor in this work, the importance of our recently built lines has been incalculable. Owing to the great distance from a railway, and the consequent delay to mails, our wire has been the chief medium of communication for practically all business purposes, so that our line has been taxed to the utmost capacity. Already settlement is reaching out beyond the territory now served by us, and we are being called upon to extend our lines north and west of their present terminals. Between Lake Saskatoon and Hudsons Hope, some 250 miles, there is already considerable settlement, with an assurance of large additions this season. From Peace River Crossing to Fort Vermilion, about 250 miles, on the north side of the Peace, lies a splendid agricultural country which is just beginning to attract attention. From the beginning, the

lines of the service have been in the van of settlement in the Northwest, while the outlook is that for many years to come they will be required by the pioneer to aid in the development of that vast north, the extent of which is not yet even fully known.

An increase of revenue for March of approximately 35 per cent over any previous month is the best evidence of the growing importance of this line in the development of the north.

Owing to the ever-increasing number of offices, with the resultant addition of employees and multiplication of accounts, the clerical work in the district superintendent's office at Edmonton keeps himself and clerk so fully occupied that he has little opportunity to get out on the lines to observe progress or keep in touch with what is being done. If new work is to be undertaken this season I would recommend that a practical assistant be granted him, in order that he may be able to devote more time to the important matter of construction.

I have the honour to be, sir,

Your obedient servant,

J. S. MACDONALD,
General Inspector.

REPORT No. 11.—VANCOUVER ISLAND LINES.

I beg to submit the annual report for this district for the year ending March 31, 1914, on the telegraph and telephone lines.

Previous to the 31st of August, 1913, this district was under the charge of Mr. Wm. Henderson.

On the 1st of September, under the general changes which took place throughout British Columbia, Mr. Wm. Dee was appointed district superintendent at Victoria, in charge of Vancouver Island lines. The Golden-Windermere line was attached to the Kamloops district.

Victoria-Bamfield (including Victoria-Jordan River telephone circuit) Bamfield-Alberni, Clayoquot-Alberni, Nanaimo-Campbell River (including lines to Alberni, Denman and Hornby islands, Gabriola Island line and the Cape Lazo branch to Comox) Campbell River-Powell River (including telephone line to Texada island) Powell River to Vancouver, extension North Vancouver to Newport, extension Pender to Saturna island, extension Sechelt to Bucaneer bay, extension Lund to Savary island, extension Sooke to East Sooke and Rocky Point telephone line, Clayoquot to Friendly Cove telegraph line.

VICTORIA-BAMFIELD SECTION.

The installation of the Sooke exchange in the early part of the year and the completion thereof with the extension to East Sooke by cable gives great satisfaction to the inhabitants of this entire district. The exchange is working very well, and we are able through switching arrangements at Victoria to give our subscribers at Sooke a connection with all the subscribers on the British Columbia telephone system, both in Victoria and all the other coast cities in the province. This has been a considerable factor in producing revenue. The interruption to the Jordan River telephone circuit was repaired on the 12th June of last year. Upon the completion of the Sooke exchange, this Victoria-Jordan River line was made a part of the Sooke telephone exchange, and is giving excellent satisfaction in every way. Interruptions, however, were very frequent in the autumn and early winter owing to the construction of the

Sooke water pipeline, but on the completion of this undertaking these interruptions naturally ceased, and since we have had little or no trouble on the circuit. The main line to Bamfield has given very good service indeed this year excepting during the months of December and January when a series of general storms all over British Columbia, Washington, and Oregon created havoc, not only on this section but over the whole district and the lines were down for several days at a time. So severe were these storms on the west coast that on one or two places, 4 miles of line were completely carried out and the poles were lost.

BAMFIELD-ALBERNI SECTION.

On the Bamfield-Alberni line conditions have improved quite considerably, but the lower section of the line from Coleman creek to Bamfield will need a very considerable overhauling this summer. The storms of last year again on this section, and the fact that a large number of trees have become unfit for use through rotting away will necessitate the expenditure of a considerable sum of money on this section. The interruptions caused last year by the operations of the Canadian Northern Railway contractors have now ceased, and they have replaced the line at the water's edge between Coleman creek and Copper mountain, about 5 miles from Port Alberni. I understand it is their intention this year to commence operations in this last section between Copper mountain and Alberni, but they have undertaken to place our wire across the canal with a submarine cable connection so that their blasting operations will not interrupt us again.

ALBERNI-CLAYOQUOT SECTION.

This section, with its branches to Brewster's cannery and Mosquito harbour, have worked very satisfactorily this year, there being fewer interruptions there than ever. This section, however, as well as the Alberni-Bamfield, is a very difficult one to maintain owing to the rough country on both sides of the canal, and I am free to say that the launches which were provided in 1911-12 have amply justified this means of maintaining and repairing the line.

NANAIMO-COMOX-CAMPBELL RIVER SECTION.

This year as was the case last year the Canadian Pacific Railway, in building their extension from Parksville through towards Campbell river have taken up the old road as part of their grade, and this has again necessitated the reconstruction of several short sections of the line. The Provincial Government has also straightened out the old road to Campbell river and this forced us to move our wires to the new road, which, however, being straighter and better cleared of trees will mean an improvement in our lines and greater ease to maintain. On the road between Port Alberni, Alberni and Parksville there will be required quite an amount for re-poling as these poles are in very bad condition in a number of places. It will also be necessary to make extensive alterations in the streets of both Alberni and Port Alberni, as it is the intention of these cities to widen and straighten the main streets along which our lines are carried.

UNION BAY-DENMAN AND HORNBY ISLANDS SECTION.

This line has continued to give general satisfaction to the people living on the islands, and it is contemplated during the early part of the coming year to give them a connection with the British Columbia telephone system with a switching arrangement at Union Bay similar to that now in use at Victoria on the Sooke exchange telephone circuit.

COMOX-CAPE LAZO SECTION.

This section is in operation, but as in previous twelve months, is not productive of much revenue. There has been some inquiry as to a telephone connection on this line, but I understand the British Columbia Telephone Company have built their wires along this road, so that there will be no room for us in this district.

NANAIMO-GABRIOLA ISLAND SECTION.

There have been very few interruptions to this section during the past year, but owing to the fact that this is a grounded circuit and the light and power companies of Nanaimo are giving a daylight service, it will be necessary to put in a metallic circuit immediately between Nanaimo and Nanaimo river to overcome the induction on this line so that our patrons will be able to use the telephone satisfactorily at any hour of the day.

CAMPBELL RIVER-POWELL RIVER-TEXADA ISLAND SECTION.

This section has been fortunate in escaping many bad interruptions this year, though in common with the rest of this district, it suffered in the December-January storms. The line to Heriot Bay, which was built and connected to the main line was found to give some little trouble from recurring escapes, thus causing delay to business generally on the main wire, it was therefore disconnected and installed separately at Bagots, and is now handled as a separate line from that point.

POWELL RIVER—VANCOUVER SECTION.

By reference to last year's report it will be seen that the land line portion of this extension was completed awaiting the arrival of the cable for the different pieces of water before it would be put into successful operation. These cables arrived, and were put down successfully under the supervision of Mr. Porter, and the line was thrown open to the public in the early part of May. While the cables were being laid, it was found that a good deal of these sections had to be thoroughly repaired, and in some places reconstruction was almost necessary on account of the severe storms, which occurred between the completion of the line, and the laying of the cables. There were no linemen appointed, until we were ready to operate, and it was therefore found necessary to send quite a gang over the line to put it in a good state of repair. The operation of this section has given very lively satisfaction, and our customers are very pleased with it, particularly as there are several important centres to be served by it. On Bowne island a complete and separate telephone circuit was built with the intention of giving the residents and visitors of that island direct telephone communication with Vancouver, but the cable has not arrived, and considerable anxiety is expressed by these people, that we should expedite the completion of this part of the work. If this is done this summer it would be a great boon, and I would recommend that a further extension of this telephone circuit be constructed to include Gibsons Landing and Sechelt at a later date.

NORTH VANCOUVER TO NEWPORT SECTION.

This piece of line was most difficult to construct. It was built along the shores of Howe sound to Newport, and this coast is extremely rocky and precipitous. Upon completion of it, however, which took place on October first fairly satisfactory revneue was at once obtained, and there have been but few interruptions since, excepting between North Vancouver and Whitecliff, where there has been considerable railway construction, which has not only interrupted this line, but the Vancouver Powell river to a considerable extent. This, however, is now almost finished and we look forward to having very few interruptions on both of these sections for the future.

As soon as the cables for the four small extensions arrived the work of construction of these lines, which are as follows: Sooke-East Sooke and Rocky Point telephone circuit Saturna-Pender Island telephone circuit Sechlet-Bucaneer Bay telephone circuit, Lund-Savary Island telephone circuit was immediately proceeded with and were all completed and in satisfactory operation by the end of the fiscal year.

CLAYOQUOT-FRIENDLY COVE EXTENSION.

The construction of the Clayoquot to Friendly Cove extension was got under way and was proceeded with, the first gang leaving Victoria on the 1st October, 1913, and started work under the foremanship of Mr. A. V. Porter, beginning at Clayoquot. It was then felt that the construction should not be proceeded with until the cables needed for the water stretches had passed Halifax. This brought us into the winter months and the construction has been carried on under severe difficulties, extreme roughness of the country, the inclement weather and the almost impenetrable forest with which we had to contend has made this work extremely slow. Added to this again it was found impracticable to construct where it was projected when the estimates were drawn up. This has particular reference to Flores island on which the estimate gave about 9 miles, the intention being to take the line across the centre of the island. However, when Mr. Porter attempted to run a preliminary line across the island it was found impossible, the interior of the island being full of dense forests; in fact, I am creditably informed that no white man has ever penetrated the interior. We were forced, therefore, to keep to the shore line with the result the mileage is 20 miles as against 9 miles in the estimate, all of which was built through densely matted brush and forest. The same conditions apply to the line south of Hesquiot harbour, and, taking it all together, this has been the most difficult and disappointing piece of construction in the whole of this district. It was found necessary to ask for a revote of part of the appropriation and also an additional vote to enable us to complete the work. It is expected that we shall be able to get the cables laid and the line completed by the end of July or possibly sooner.

ALERT BAY-SUQUASH.

This line was put under way previous to the arrival of the cables so that it could be put into operation immediately upon arrival, as soon as we could get the necessary length. It was found, that the estimated length of cable for this work was not long enough, and we had to send slightly over half a mile of cable which we happened to have on hand at Victoria, before communication could be effected. Here again we found construction difficult chiefly on account of the dense underbrush and heavy wind falls, which have taken place there annually for several years. However, the line was satisfactorily completed, and now in operation giving the Pacific Coast Coal Mines Company connection with the radio-telegraph station at Alert bay, and they are very pleased with it.

JAMES ISLAND-SAANICHTON LINE.

Acting under the instructions of the department last year, Mr. Henderson purchased a mile of cable, which was laid before the line was completed, and the telephones installed, and regret to say, that upon completion of the land line, and the installation of the telephones, the cables proved to be defective and Line Foreman Porter was instructed to make a thorough examination of it, which he did with the result, that the condemned cable was taken up and a mile section which we had on hand at Nanaimo was put in its place. Mr Moore, the general manager of the Canadian Explosives expressed his great satisfaction at the service, which is being rendered them at their works on James island. There have been no interruptions on this line since it was finished.

There is now but one relay station between Victoria and Vancouver, that being Parksville, instead of four, as formerly. This effects a great saving of time, eliminates the possibility of mistakes and adds to the general effieiency of the service. There has been installed at Campbell river a set of repeaters (Ghegan), which is proving of very great help to our service, and by placing another set at Alberni we expect to be able to give a direct service from Victoria to Vancouver.

REPORT No. 12—KAMLOOPS, OKANAGAN AND GOLDEN WINDERMERE.

I beg to submit the annual report for this district for the year March 31, 1913, to March 31, 1914.

On August 21, 1913, the office of the district superintendent was made vacant by the death of the late Mr. L. A. Palmer, and the department suffered the loss of a faithful and trustworthy servant.

From October 10, 1913, to February 28, 1914, Mr. C. E. Gooding, district superintendent at Ashcroft, acted as district superintendent of this district as well. Mr. W. H. Stevens was appointed district superintendent at Kamloops March 1, 1914.

GOLDEN-WINDERMERE SECTION.

In September, 1913, this section of 90 miles, was added to Kamloops district. Before that date it was under the district superintendent of Vancouver Island lines. This line should be rebuilt to put it in first-class order, which work is expected to be carried out this season. Last year $4,000 was voted for repairs, but as it was late in the fall before work could be begun, only temporary repairs were carried out at a cost of $1,107.25.

NORTH THOMPSON RIVER SECTION, 64 MILES.

This line is badly in need of repairs. It has been badly damaged by the Canadian Northern Railway construction work during the past two years, and only temporary repairs made. In places it is carried on trees for some distance from the wagon road. We have also experienced considerable trouble by our line crossing the new railway several times and the work train apparatus breaking our wires frequently, but now that railway construction work is about completed as far as our line runs, the line should be put in good shape this summer and instead of having the lines cross the North Thompson river at Chinook cove, and Chu Chua, do away with these two overhead crossings and run the line across the new Government bridge at Barrier, complete the short line between Barrier bridge and Chinook cove and give the settlers phone service on both sides of the river in that district. That would do away with the switch at Geniers, and have it placed at the Barrier where the new proposed line from Hefferley creek around the Louis creek district will come out at the main North River road. I found that 5,000 feet of cable had been sent up there last year to replace the overhead wires crossing the river, but was never used and also one piece about 1,000 feet is in the river, with one end broken loose. There is no need for this cable. It should be brought back to Kamloops and used elsewhere.

Business is keeping up to the average on this line, although not as heavy as when railway camps were busy with the construction work. This line will have to be rebuilt next year as the poles are nearly all rotted and in many places will have to be moved to the new wagon road.

The new proposed line from Hefferley creek around to Louis creek, and the back road with a spur up Sullivan valley, which can be worked from Hefferley creek, and also a spur from Blucher Hall Post office to Adams lake will give service to a large number of bona fide settlers all the way along that route, and will fill a long felt want in that district.

All the expenditure on the North River section has been provided for under maintenance.

KAMLOOPS-SAVONAS SECTION.

The section of line was completed last October, at a cost of $2,443.76, and is in splendid working order. Business has increased since it was opened, and we expect to have several more subscribers on it before long. We hope to get the extension of this line to Asheroft built the coming summer, which will give us direct connection with the Government telephone and telegraph lines, through the Cariboo and Lillooet district.

KAMLOOPS TO VERNON VIA NICOLA AND PRINCETON.

The portion of this line between Kamloops and Nicola will have to be overhauled this year, several poles reset and slack taken up, which will then put it in very good shape.

DOUGLAS LAKE SECTION.

This is a spur of 10 miles from Quilchena to Douglas lake, and was built last year at a cost of $772.22.

Merritt, which is on a spur, 7 miles from Nicola, has a local exchange, which has grown from 64 subscribers to 85 in the past year.

Nicola also has a local exchange of 14 subscribers. The line from Nicola to Hamilton Hill was rebuilt two years ago, but from Hamilton Hill to Princeton is in bad shape, and needs to be rebuilt. During the past winter and spring there were frequent interruptions on account of poles falling.

At Princeton there is now a local exchange of 38 subscribers. Frequent interruptions, but of short duration have occurred on this piece of line, mostly caused by falling timber.

At Keremeos, H. C. N. Etches was appointed agent on a salary, March 1. Previous to this it was a commission office. At this point we transfer all messages with the Western Union Telegraph Company's lines. The proposed new Government line from Fairview to the boundary, south, connecting up with Oroville, Washington, will be a great benefit to our service, and put our line in direct telephone connection with Spokane, and all points south.

At Penticton, business has shown up very good for the year.

At Vernon our line coming in from Kamloops is on the city electric light poles, from the city boundary to the office. The induction from the electric wires almost made it impossible to use the line in the evening, when the power was turned on. This will be overcome by running our own pole line into the city, permission having been obtained from the city for right of way, and the work will be commenced at once. The Vernon-Lumby line was also without right of way into the city, and was brought in for a mile or so on the Okanagan Telephone Company's poles for which they charge a rental. Arrangements are being made for a right of way for this line along the south boundary of the city, and connecting with the Kelowna pole line, bringing it on that line to the office. This will overcome the past difficulties we have had, because of no Government right of way, through the city to our office. It is expected that railway construction will begin this summer along the road from Kamloops to Vernon. This should increase business on this section considerably.

ROSE HILL SECTION 12 MILES.

This piece of line was originally used as a part of the Kamloops-Vernon, but since last year, when the new section was built direct along the main road from Kamloops, it has been used only for the settlers in that district. It is the intention to make this a local exchange, to serve the people in that district, and put them on an annual rental basis, but charging them the regular long distance tolls, when using the main line.

NAKUSP-EDGEWOOD LINE.

This section of 50 miles, which was finished, and added to the Kamloops-Okanagan district in December, 1912, is in charge of L. J. Edwards, who was appointed, as circuit manager, in November, 1913. This line will have to be overhauled at an estimated cost of $400—in a few places new poles will have to be provided to take the place of tree supports. When this is done the line should be in good working order for some time.

The total revenue for the year for this district, including seven months of the Golden-Windermere line, transferred to this office in September was $29,436.08.

REPORT No. 13—YUKON.

VANCOUVER, B.C., June 1, 1914.

D. H. KEELEY, Esq.,
General Superintendent, Government Telegraph Service.
Ottawa, Ont.

DEAR SIR,—I beg to submit herewith my annual report, covering the operation of the lines in the Yukon and British Columbia Districts for the year 1913-14.

YUKON SYSTEM.

Main Line Ashcroft to International Boundary below Dawson.—During the past year the volume of business passing over these lines has been exceptionally heavy—the increase in messages being 24,105, the increase in revenue $20,399.90, the wires being taxed to their utmost capacity, and during the summer months, day and night staffs worked continuously. With the exception of a short time during June and July, when bush fires caused interruptions at various points in the Bulkley valley, destroying portions of the line, and again in the late fall when storms prostrated the line at several points in the mountain sections, communication was maintained continuously, and the traffic handled in a most satisfactory manner. Re-poling of the line along the Cariboo road was completed from 61 Mile House to 115 Mile House, and from 134 Mile House to 158 Mile House. Next season it is intended to complete the re-poling of the line from 158 Mile House to Quesnel. Where the line has been reconstructed in the past two seasons, it is in excellent condition, and on this account contributed in no small measure to the efficient handling of business, both through and local. That portion of the main line north of Quesnel to Stella, was also put in good order by a small gang under Lineman Worthington, of Fort Fraser, a similar party under Lineman Blackstock of Hazelton re-poled, and made general repairs between Stella and South Bulkley.

On the Yukon section, between Atlin and the international boundary below Dawson, a small gang, under Line Foreman Couture, of Dawson, completed general repairs from Selkirk to the boundary, and one under Lineman Lokken operated from Atlin to Selkirk. This section is now in good working order, and very few interruptions occurred during the past year. A substantial increase in messages and revenue is shown in this district, especially at Dawson, White Horse and Atlin.

Hazelton-Prince Rupert-Stewart Branch.—The operation of this line during the past year has been very satisfactory, and with few exceptions, an uninterrupted service was maintained. The exceptions noted were caused by bush fires at points along the Skeena river, but in every case circuit was restored promptly, and little delay caused to traffic. Next season it is intended to reconstruct a considerable portion of this line, where great damage was done by railway construction work, and only repairs of a temporary nature were made.

Ashcroft-Lillooet Branch.—This line is in good order, and was converted into a composite telegraph and telephone line to provide telephone communication for several railway construction camps and ranches. The service is excellent, and has been of great assistance to the railway construction parties and their headquarters at Lillooet and Ashcroft, where telephones were also installed.

150Mile House-Bella Coola Branch.—The operation of this branch, which was constructed last year, has been of inestimable value to the settlers in the Chilcoten district, through which it runs, as well as to residents and shipping at Bella Coola. A steady increase in business is noted, showing that full advantage is taken of the line. Several new telephone offices have been installed at various points during the past year, and the different localities are now well provided for in respect to service.

Horsefly Branch.—The closing down of mining work at Hydraulic caused a loss of revenue at that point, but increases at other offices nearly counterbalances this decrease, and it is expected, that work at Hydraulic will be resumed next season. The line requires considerable reconstruction, which will be undertaken next season.

Barkerville Branch.—This line is in very good order, and very few interruptions occurred during the year. Very little mining was done in this district during the past season, which accounts for the decrease in revenue, shown on the comparative statement.

Queen Charlotte Island Construction.—Construction of this line on Graham island begun July 13, 1913, by Line Foreman J. A. Thorne with a crew of fourteen men. The work was started at Skidegate, and the old local telephone line between Skidegate and the wireless station at Dead Tree Point, 7 miles, was entirely rebuilt, as it had been very poorly constructed in the first instance and was only a temporary connection. Good progress was made, and the entire line completed by November 6, 1913, besides the main Line from Queen Charlotte city to Tow Hill, 109 miles, a piece of line seven (7) miles in length was built on Moresby island, connecting Shingle bay with the British Columbia fisheries plant at Aliford bay,—later a cable is to be laid to connect the two islands. Telegraph offices were installed at Queen Charlotte city, Dead Tree Point wireless station, Queenston and Massett, and telephones installed at Shingle bay, Aliford bay, Old Skidegate, T1-Ell river, Gold creek, Mirror lake, Graham Centre, Nadu, Woden, Delkatlah, and Tow Hill. Telephones were also installed in the telegraph offices mentioned.

Lillooet-Lytton telephone construction.—Construction of this telephone line, 47 miles, connecting Lillooet with Lytton on the C.P.R. line was begun August 4, 1913, by Foreman S. A. MacFarlane, with a gang of ten (10) men. The work was vigorously prosecuted, and the line completed October 9. Telephones were installed at Lytton and Lillooet, and at five(5) intermediate ranch houses along the main wagon road.

British Columbia and Yukon system generally.—The several districts in British Columbia were reorganized and all placed under the supervision of this office, beginning September 1, and local district superintendents appointed, with jurisdiction over the following districts: Vancouver Island lines, including Vancouver to Campbell river and White Cliff to Newport, Mr. Wm. Dee, district superintendent, with headquarters at Victoria, B.C.

Ashcroft to Aldermere, including Bella Coola, Lillooet, Lytton, Stewart Lake, Horse Fly, and Barkerville branches,—Mr. C. E. Gooding, district superintendent, with headquarters at Ashcroft, B.C.

Prince Rupert to Telkwa, Smithers to Atlin, including Stewart and Port Simpson branches,—Mr. F. W. Dowling, district superintendent, with headquarters at Prince Rupert.

Okanagan lines, including Golden-Windermere and Nakusp-Edgewood sections,—Mr. W. H. Stevens, district superintendent, with headquarters at Kamloops, B.C.

I also inclose herewith the annual comparative statement of revenue and messages for the Yukon system, which again shows a gratifying increase for the fiscal year 1913-14.

As an indication of the growth and settlement of the localities, where these lines operate, and to demonstrate their usefulness, I beg to draw attention to the number of messages handled, and the revenue collected in 1907-08, as compared with 1913-14. In 1907-08 the total number of messages was 42,307, and the total revenue $80,440.96, whereas for 1913-14, the number of messages is 131,723, and the revenue $155,494.08. The prompt and efficient handling of this large volume of business over a single wire indicates to some extent the high proficiency of the staff of operators and circuit managers engaged in the service, and the unfailing interest taken by them in accelerating the movement of traffic.

Yours very truly,

J. T. PHELAN,
Superintendent.

YUKON TELEGRAPHS.

ASHCROFT-DAWSON, MAIN LINE.

COMPARATIVE Statement of Revenue for the Years ending March 31, 1913, and March 31, 1914.

Offices.	Fiscal Year, 1912-1913.			Fiscal Year, 1913-1914.			SUMMARY.					
							Messages.				Revenue.	
	Messages.		Revenue.	Messages.		Revenue.	Increase.		Decrease.		Increase.	Decrease.
	Sent.	Received	$ cts.	Sent.	Received.	$ cts.	Sent.	Received.	Sent.	Received.	$ cts.	$ cts.
Ashcroft, B.C.	31,819	39,821	32,001 95	39,685	51,648	34,306 53	7,866	11,827			2,304 58	
Aldermere, B.C.	1,477	1,173	1,349 76	1,110	840	1,007 32			367	333		342 44
Anders, B.C.	175	124	67 66	99	74	52 46			76	50		15 20
Atlin, B.C.	815	593	1,899 88	985	706	2,264 67	170	113			364 79	
Big Salmon, Y.T.	28	29	57 14	58	36	114 35	30	7			57 21	
Blackwater, B.C.	1,512	3,949	1,975 61	11,697	9,804	8,594 85	7,185	5,855			6,619 24	
Bobtail Lake, B.C.	65	38	53 21	104	62	61 90	39	24			8 69	
Boundary, Y.T.	2,153	1,899		2,102	1,5 3				51	306		
Bulkley Summit, B.C.				592	435	900 32	592	435			900 32	
Burns' Lake, B.C.	510	393	468 97	394	349	464 75			116	44		4 22
Carcross, Y.T.	507	450	1,129 78	289	279	329 10			218	171		800 68
Carmack, Y.T.	15	13	26 05	246	199	410 36	231	186			384 31	
Choates, B.C.				13	3	11 33	13	3			11 33	
Clinton, B.C.	2,067	1,769	1,086 61	2,255	1,916	1,354 23	188	147			267 62	
Coffee Creek, Y.T.	52	45	22 65	120	67	150 45	68	22			127 80	
Dawson, Y.T.	5,801	5,170	28,284 62	6,235	5,544	29,976 13	434	374			1,691 51	
Decker Lake, B.C.				551	313	581 96	551	313			581 96	
Dougherty, B.C.	97	92	29 07	109	90	39 60	12			2	10 53	
Echo Lake, B.C.	6	2	10 96	9	6	16 70	3	4			5 74	
Eighth Cabin, B.C.	14	6	28 20	4	3	5 61			10	3		22 59
Fifth Cabin, B.C.	97	123	98 18	76	41	59 65			21	82		38 53
First Cabin, B.C.	13	4	8 69	23	12	14 51	10	8			5 82	
Fort Fraser, B.C.	288	237	236 82	2,977	2,243	3,264 54	2,689	2,006			3,027 72	
Fort Selkirk, Y.T.	216	178	221 58	164	144	234 15			52	34	12 57	
Forty Mile, Y.T.	292	218	400 26	224	175	219 97			68	43		180 29
Fourth Cabin, B.C.	42	41	31 52	31	23	17 29			11	18		14 23
Fraser Lake, B.C.	981	786	853 50	134	147	199 01			847	639		654 49
Government Ranch, B.C.	280	188	302 40	115	73	139 05			165	115		163 35
Hat Creek, B.C.	3		1 00	225	203	91 40	222	203			90 40	
Hazelton, B.C.	5,826	5,504	7,081 24	3,418	2,984	3,906 41			2,408	2,420		3,174 83
Hootalinqua, Y.T.	78	58	76 20	105	83	48 89	27	25				27 31
Iskoot, B.C.	2	2		1		2 00			1	2	2 00	
Kispiox	65	86	43 76	65	72	53 51				14	9 75	

Lower Laberge, Y.T	149	122	211 31	157	121	131 55	8			1		79 76
Lynes, B.C.	123	101	48 50	129	83	58 45	6			18	9 95	
Moffats, B.C.	50	38	17 64	63	13	36 06	13			25	18 42	
Morice-town, B.C.	159	69	128 03	112	96	79 93		27	47			48 10
Nahlin, B.C.	18	6	6 73	51	38	30 36	33	32			23 63	
Nakina, B.C.	3	3		12	15	15 67	9	12			15 67	
Nechaco, BC.	283	270	268 68	332	251	290 97	49			19	22 29	
Ninth Cabin, B.C.	21	11	36 45	33	14	83 56	12	3			47 11	
North Bulkley, B.C.				30	21	16 49	30	21			16 49	
Ogilvie, Y.T.	113	61	58 28	123	34	55 47	10			27		2 81
59 Mile House, B.C	102	82	31 23	72	44	25 71			30	38		5 52
70 "	81	47	32 59	274	167	203 78	193	120			171 19	
74 "	58	71	10 10	103	105	30 86	45	34			20 76	
83 "	170	142	45 80	171	104	62 90	1			38	17 10	
100 "	80	62	43 54	209	115	86 52	129	53			42 98	
105 "	132	125	81 07	270	160	118 44	138	35			37 37	
108 "				14	6	12 28	14	6			12 28	
115 "	589	348	262 03	443	261	165 18			146	87		96 85
122 "	56	39	17 48	126	72	52 69	70	33			35 21	
134 "	92	100	36 15	74	69	34 82			18	31		1 33
141 "	199	143	94 72	356	262	218 86	157	119			124 14	
150 "	1,987	1,757	1,187 99	2,454	1,977	1,508 78	467	220			320 79	
153 "				66	96	38 01	66	96			38 01	
158 "	87	97	55 06	100	66	51 49	13			31		3 57
Quesnel, B.C.	4,319	3,949	3,278 26	4,640	4,432	3,771 11	321	483			492 85	
Roweds, B.C.				20	6	22 75	20	6			22 75	
Second Cabin, B.C.	49	31	43 65	23	14	15 80			26	17		27 85
Seventh Cabin, B.C.	6	10	10 20	17	4	10 85	11			6	0 65	
Shepherd's, B.C.	54	32	19 10	22	15	14 77			32	17		4 33
Shesley, B.C.	41	28	42 61	34	23	27 51			7	5		15 10
Sixth Cabin, B.C.	4	11	1 77	18	18	32 19	14	7			30 42	
Smithers, B.C				111	95	119 77	111	95			119 77	
Soda Creek, B.C.	1,179	998	524 56	1,299	988	610 62	120			10	86 06	
South Bulkley, B.C.	366	234	307 38	157	105	195 64			209	129		111 74
Stella, B.C.	202	174	188 08	597	391	670 26	395	217			482 18	
Stewart River, Y.T.	233	159	316 27	262	178	317 89	29	19			1 62	
Stuart Lake, B.C.	57	67	89 86	130	151	285 85	133	84			196 60	
Tagish, Y.T.	1	2	0 50	8	9	6 88	7	7			6 38	
Tantalus, Y.T.	80	72	186 45						80	72		186 45
Telegraph Creek, B.C.	339	347	808 70	359	400	746 85	20	53				61 85
Telkwa, B.C.	1,693	1,475	1,962 91	1,957	1,899	2,564 00	264	424			601 09	
Third Cabin, B.C.	20	24	10 23	14	9	15 96			6	15	5 73	
25 Mile Cabin, B.C.	0	1		1	0	0 25	1			1	0 25	
White Horse, Y.T.	2,214	2,388	4,999 33	3,016	3,359	8,628 78	802	971			3,629 45	
White River, Y.T.				210	157	250 03	210	157			250 03	
Windts, B.C.	44	60	23 34	43	25	31 05			1	35	7 71	
Yorstons, B.C.	114	229	42 41	92	116	45 80			22	113	3 39	
Yukon Crossing, Y.T.	105	87	116 15	94	81	75 82			11	6		40 33
Totals	73,968	76,963	93,492 41	93,173	96,832	110,762 27	24,251	24,886	5,046	5,017	23,393 61	6,123 75

YUKON TELEGRAPHS—*Continued.*

HAZELTON-PRINCE RUPERT BRANCH.

COMPARATIVE Statement of Revenue, for the Years ending March 31, 1913, and March 31, 1914—*Continued.*

SUMMARY.

Offices.	Fiscal Year, 1912-1913.			Fiscal Year, 1913-1914.			Messages.				Revenue.	
	Messages.		Revenue.	Messages.		Revenue.	Increase.		Decrease.		Increase	Decrease.
	Sent.	Received.	$ cts.	Sent.	Received.	$ cts.	Sent.	Received.	Sent.	Received.	$ cts.	$ cts.
Bostrouns, B.C.	7	3	4 75						7	3		4 75
Cassiar, B.C.	42	36	88 60	41	47	63 58		11	1			25 02
Cedarvale, B.C.	79	65	48 90	77	74	60 04		9	2		11 11	
Copper River, B.C.	120	94	75 04	76	61	44 77			44	33		30 27
Digby Island, B.C.	1,690	1,079		1,354	1,012				336	67		
Georgetown, B.C.	37	50	113 10	49	57	123 95	12	7			10 85	
Graveyard Pt., B.C.	33	18	41 75	37	32	54 22	4	14			12 47	
Hardscrabble, B.C.	103	83	78 84						103	83		78 84
Hays Port, B.C.	768	660	1,103 25	745	577	1,081 47			23	83		21 78
Hole-in-Wall, B.C.	50	39	38 57	8	2	3 40			42	37		35 17
Inverness, B.C.	108	87	120 26	101	91	106 09		4	7			14 17
Kitselas, B.C.	509	451	329 53	309	260	269 19			200	191		60 34
Kitsumkalum, B.C.	469	412	298 70						469	412		298 70
Kitwangar, B.C.	249	229	191 60	223	137	186 47			26	92		5 13
Lorne Creek, B.C.	74	68	53 75	52	47	45 41			22	21		8 34
McHughs, B.C.	21	11	19 75	5	4	1 40			16	7		18 35
New Hazelton, B.C.	3,363	3,208	4,738 19	2,288	2,107	2,812 15			1,075	1,101		1,926 04
North Pacific, B.C.	48	53	74 88	63	45	95 79	15			8	20 91	
Pacific (Nicholl), B.C.	83	83	34 58	71	43	59 25			12	40	24 67	
Port Edward, B.C.	21	19		58	56	34 80	37	37			34 80	
Port Essington, B.C.				124	150	143 92	124	150			143 92	
Port Simpson, B.C.	491	396	535 37	439	366	443 14			52	30		92 23
Prince Rupert, B.C.	18,766	17,642	26,844 15	17,247	15,763	24,716 06			1,519	1,879		2,128 09
Telegraph Point, B.C.	35	26	25 41	20	14	30 23			15	12	4 82	
Terrace, B.C.	43	48	49 76	573	510	496 23	530	462			446 47	
Van Arsdol, B.C.	212	132	127 34						212	132		127 34
Totals	27,421	24,992	35,036 07	23,960	21,455	30,871 56	722	694	4,183	4,231	710 05	4,874 56

LILLOOET—PIONEER.

Coronation, B.C.	65	23	18 25	187	51	85 40	122	28			67 15	
Fairhaven, B.C.	30	10	8 25	142	60	48 03	112	50			39 78	
Golden Dream, B.C.				4	7	13 25	4	7			13 25	
Hansens, B.C.				21	3	15 50	21	3			15 50	
Mission Landing, B.C.	17	5	3 25	0	1				17	4		3 25
Pioneer, B.C.				51	0	26 25	51				26 25	
Portage, B.C.	3	2	1 50	89	64	46 91	86	62			45 41	
Seton Lake, B.C.	291	216	56 50	1,000	889	615 00	709	673			558 50	
Tyanghton, B.C.	33	9	8 25	114	34	38 00	81	25			29 75	
Wayside, B.C.				52	1	26 50	52	1			26 50	
Totals	439	265	96 00	1,660	1,110	914 84	1,238	849	17	4	822 09	3 25

LILLOOET—LYTTON.

Dickevs, B.C.				0	3	16 25	0	3			16 25	
Halfway House, B.C.				35	38	22 50	35	38			22 50	
Jones, B.C.				0	4	16 25	0	4			16 25	
Lochores, B.C.				5	10	15 00	5	10			15 00	
Lytton, B.C.				408	233	103 85	408	233			103 85	
McCarty, B.C.				4	5	11 25	4	5			11 25	
Mahers, B.C.				6	8	15 25	6	8			15 25	
Ruddocks, B.C.				1	14	14 00	1	14			14 00	
Totals				459	315	214 35	459	315			214 35	

150 MILE HOUSE—QUESNEL FORKS.

Harper's Camp, B.C.	191	174	190 00	332	283	207 33	141	109			17 33	
Hydraulic, B.C.	130	133	107 10	37	80	27 57			93	53		79 53
Quesnel Forks, B.C.	330	264	215 97	343	242	239 79	13			22	23 82	
Roses, B.C.				14	17	15 51	14	17			15 51	
Wiggins, B.C.				19	17	14 91	19	17			14 91	
Totals	651	571	513 07	745	639	505 11	187	143	93	75	71 57	79 53

YUKON TELEGRAPH—*Continued*

TERRACE-STEWART, B.C.

COMPARATIVE Statement of Revenue for the Years ending March 31, 1913, and March 31, 1914.—*Continued.*

Offices	Fiscal Year, 1912-1913.			Fiscal Year, 1913-1914.			Summary					
							Messages.				Revenue.	
	Messages.		Revenue.	Messages.		Revenue.	Increase.		Decrease.		Increase.	Decrease.
	Sent.	Received.	$ cts.	Sent	Received.	$ cts.	Sent.	Received.	Sent.	Received.	$ cts.	$ cts.
Aiyansh, B.C	86	83	80 37	162	121	201 34	76	38			120 97	
Alice Arm, B.C	72	56	81 91	52	49	48 46			20	7		33 45
Anyox (Goose Bay), B.C	566	443	1,114 72	1,284	1,044	2,689 02	718	601			1,574 30	
Maple Bay, B.C				6	3	9 35	6	3			9 35	
Rosswood, B.C	13	6	7 66	43	46	31 44	30	40			23 78	
Stewart, B.C	804	747	1,511 04	669	549	1,255 73			135	198		255 31
Swamp Point, B.C				1	0	21 83	1	0			21 83	
Totals	1,541	1,335	2,795 70	2,217	1,812	4,257 17	831	682	155	205	1,750 23	288 76

HOOTALINQUA-LIVINGSTONE CREEK, Y.T.

Livingstone Creek, Y.T	22	11	23 70	45	15	47 50	23	4			23 80	
Mason's Landing, Y.T				1			1					
Totals	22	11	23 70	46	15	47 50	24	4			23 80	

QUEEN CHARLOTTE ISLAND LINE.

Dead Tree Point, B.C.								231	290	80 47			
Delkatla-Point, B.C.								3	1	8 25			
Ferguson, B.C.								3	0	10 75			
Graham Centre, B.C.								16	10	27 13			
Indian Village, B.C.								13	11	12 59			
Lawn Hill, B.C.								7	6	4 68			
Massett, B.C.								197	182	187 25			
Meyer Lake, B.C.										7 50			
Miller Creek, B.C.										85			
Nadu, B.C.								3	6	10 75			
Queen Charlotte City, B.C.								95	96	129 83			
Queenstown, B.C.								142	99	103 01			
Skidegate, B.C.								15	32	30 90			
Tl.-Ell, B.C.								7	6	5 50			
Tow Hill, B.C.								20	3	20 96			
White Creek, B.C.										1 25			
Woden, B.C.								17	14	28 05			
Totals								769	756	669 72			
Less "Payouts" to wireless.										349 35			
Net revenue										320 37			

This line opened Oct., 1913.

150 MILE HOUSE—BELLA COOLA.

Alexis Creek B.C.	17	6	7 25	230	133	183 45	213	127					176 20
Anarko (Moshers), B.C.				51	24	39 12	51	24					39 12
Bayliffs, B.C.	2	1	6 04	38	17	64 91	36	16					58 87
Beaumont, B.C.				2	0	3 75	2	0					3 75
Becher, B.C.	49	50	30 87	310	363	264 97	261	313					234 10
Bella Coola, B.C.	98	74	167 19	659	545	1,113 29	561	471					946 10
Borlands, B.C.				8	12	13 90	8	12					13 90
Canoe Crossing, B.C.				2	5	2 05	2	5					2 05
Chilanco Forks, B.C.				4	1	44 00	4	1					44 00
Four Mile Creek, B.C.													
Hanceville, B.C.	22	22	17 67	153	109	179 57	131	87					161 90
Kluna Kluna, B.C.	7	1	5 78	18	42	42 84	41	41					37 06
Lees, B.C.	16	8	12 92	137	65	195 36	121	57					182 44
Lownes, B.C.				17	4	29 20	17	4					29 20
Martins, B.C.				1	2	6 60	1	2					6 60
Marvins, B.C.						12 50							12 50
Onward Ranch, B.C.	1		1 05	118	153	119 50	117	153					118 45
Pypers, B.C.				1	2	6 35	1	2					6 35
Tatla Lake, B. C.	0	1		9	13	42 34	9	12					42 34
Williams Lake, B.C.	1	2	1 15	26	64	58 25	25	62					57 10
Youngs, B.C.						5 00							5 00
Totals	213	165	249 92	1,814	1,554	2,426 95	1,601	1,389					2,177 03

YUKON TELEGRAPHS—*Continued.*

COMPARATIVE Statement of Revenue, for the Years ending March 31, 1913, and March 31, 1914—*Continued.*

QUESNEL—BARKERVILLE

SUMMARY

Offices.	Fiscal Year, 1912-1913.			Fiscal Year, 1913-1914.			Messages				Revenue.	
	Messages.		Revenue.	Messages.		Revenue.	Increase.		Decrease.		Increase.	Decrease.
	Sent.	Received.	$ cts.	Sent.	Received.	$ cts.	Sent.	Received.	Sent.	Received.	$ cts.	$ cts.
Barkerville, B.C.	884	881	855 76	733	715	530 11			151	166		325 65
Cottonwood, B.C	112	134	47 85	75	60	36 90			37	74		10 95
Lockes, B.C.	30	44	14 25	2	3	8 54			28	41		5 71
Stanley, B.C.	287	185	273 04	286	205	359 11		20	1		86 07	
Wingdam, B.C.	110	108	58 50	76	93	106 05			34	15	47 55	
Totals	1,423	1,352	1,249 40	1,172	1,076	1,040 71		20	251	296	133 62	342 31

North Sydney, C.B., N.S., March 31, 1914.

D. H. Keeley, Esq.,
General Superintendent Government Telegraphs,
Ottawa, Ont.

Dear Sir,—Outside of some repairs to the boiler and a new funnel, there has not been much done to the ship in the way of repairs during the past year.

Herewith please find a summary of the work done and the lengths of cable handled.

1913—

April 1 to 21.—Repairing boiler at Halifax.
21.—Sailed for repair of Magdalen Island cable.
22.—Arrived at North Sydney.
23.—Coaled ship and sailed for cable ground.
24 and 25.—Repairing Magdalen Island cable.
26 to 29.—Repairing St. Paul Island cable.
30.—At North Sydney doing some repairs to boiler.

May 1 and 2.—Doing temporary repair at Little Bras d'Or.
3 and 4.—At North Sydney. Fog and rain.
5.—Repairing Scatari Island cable.
6.—Made permanent repair at Little Bras d'Or.
7.—Sailed for repair of Entry Island cable.
8 and 9.—Repairing Entry Island cable.
10 to 16.—Repairing Bryon Island cable.
17.—Went to Gaspé.
18.—Arrived at Gaspé.
19.—Took in water at Sandy Beach wharf.
20.—Turning over cable aboard.
21 to 23.—Repairing South West Point cable.
24 to 27.—Repairing Long Point cable.
28 and 29.—Taking repairer Bourget from Salt Lake to Gaspé.
30.—Sailed for Heath Point.
31.—Repair to instruments, battery, etc., Heath Point.

June 1.—Arrived at North Sydney.
2.—Took in coal.
4.—Took in water.
5.—Under way for Burgeo, Newfoundland.
5 to 17.—Repairing Burgeo-Rameau cable.
18.—At sea for repair of Caribou-Wood Island cable.
19 to July 2.—Repairing the above cable.

July 3.—At Pictou, N.S.
4. Sailed for Halifax.
5.—Arrived at Halifax.
6 to Sept. 19.—At Halifax.

Sept. 20.—Took in coal.
22.—Gale, southeast wind.
23.—Sailed for repair of Magdalen Island cable.
24.—Arrived at North Sydney.
25 and 26.—Repairing Magdalen Island cable.
27.—Landing coal at Bay St. Lawrence Station.
28 to Oct. 1.—At North Sydney.

Oct. 2.—Sailed for Halifax.
5.—Arrived at Halifax.
6 to Nov. 18.—At Halifax.
Nov. 19.—Sailed for repair of Bryon Island cable.
20.—Arrived at Port Hawkesbury.
21.—Blowing hard, remained at Hawkesbury.
22.—Continued voyage.
23.—Arrived at Grosse Isle.
24 and 25.—Repairing Bryon Island cable.
26.—Arrived at North Sydney.
27.—Took in coal.
28.—Sailed for Halifax.
29.—Arrived at Halifax.
Dec. 15 and 16.—Taking cable from *Kanawa*.
17 to Jan. 5.—Reeling and shipping 20¾ knots of cable.
Jan. 8.—Sailed for repair of Grand Manan cable.
9.—Arrived at Seal Cove, N.B.
10.—Mr. Parker, district superintendent, came aboard.
12.—Repairing cable.
13.—At Welchpool for shelter.
14.—Went out to look for wrecked steamer *Cobequet*.
15.—Repairing cable.
16.—Went to East Port.
17.—Put patch on funnel.
18 and 19.—Weather stormy.
20.—Sailed for Halifax.
22.—Arrived at Halifax.
26 to Mar. 23.—Getting new funnel.
Mar. 23 to 31.—At Halifax.

CABLE ON HAND—LENGTHS OF CABLE.

Dates.	Deep-sea Cable.	Knots.	Knots.
1913.			
April 1	Cable on hand		18.39
" 24	Magdalen Island cable repair, picked up		1.28
	" " laid	1.13	
" 11	Sent to British Columbia	1.00	
" 26	St. Paul Island repair, laid	.80	
	" " condemned	.06	
" 28	" " picked up		.15
" 29	" " laid	1.85	
May 19	Bryon Island repair, picked up		1.63
	" " laid	9.18	
" 23	Southwest Point cable repair, picked up		.47
	" " laid	2.43	
" 27	Long Point cable repair, picked up		.50
	" " laid	1.00	
June 17	Burgeo Newfoundland cable repair, laid	1.38	
" 19	Caribou Wood Island cable, picked up		8.69
July 2	" " laid	1.81	
Nov. 25	Bryon Island cable repair, picked up		.97
	" " laid	1.07	
Dec. 15	Received from Steamer *Kanawa*		42.
1914.	Sent to British Columbia	20 75	
Jan. 5	Grand Manan cable repair, picked up		1.71
" 15	" " laid	1.95	
Mar. 31	Cable on hand	34 38	
		78.79	78.79

SHORE END CABLE.

1913			
April 1....	Total cable aboard....		2.24
May 5.	Seatari Island cable repair, laid	.10	
1914			
Mar. 31 ...	Cable on hand	2.14	
		2.24	2 24

I have the honour to be sir,

Yours faithfully,

A. B. McDONALD,
Electrician C. G. S. Tyrian.

PART VI

REPORT OF THE COLLECTOR OF REVENUE

DEPARTMENT OF PUBLIC WORKS

1913-14

DEPARTMENT OF PUBLIC WORKS,

COLLECTION OF REVENUE,

OTTAWA, June 29, 1914.

The Secretary,
Department of Public Works,
Ottawa.

SIR,—I have the honour of submitting my report for the twelve months ended March 31, 1914.

During the twelve months just closed, the revenue accrued from public works shows an increase of $22,190.52, being $270,639.34, while in the preceding year it was $248,448.82.

The collections show an increase of $8,769.86, being $255,657.52, while in 1912-13 they amounted to $246,887.66.

The revenue accrued from slides and booms was $76,883.53, or $31,889.28 less than for year ended March 31, 1913.

The collections were $76,883.22, or $33,225.12 less than the previous year.

The outstanding uncollected revenue from slides and booms was increased by 31 cents.

The graving docks yielded $61,489.80, or $13,562.29 more than in 1912-13.

Sales and rents collected amounted to $117,284.50, an increase of $28,432.69.

Having dealt with the revenue in a general way, I now submit the particulars, in detail, relative to the several services under their respective heads.

SLIDES AND BOOMS.

OTTAWA DISTRICT.

The tolls charged up amounted to $24,580.38, or $18,348.40 less than in 1912-13.

The number of sawlogs that passed through the works was 3,989,283, or 370,997 pieces less than the previous year.

Of square timber there was none.

Of the revenue accrued during the year, all but $25.31 was collected.

Of the dues accrued since July 1, 1889, when this department took over the collection, there remains uncollected $9,145.44, full particulars of which will be found in Statement No. 2 herewith.

Of the dues accrued before July 1, 1889, there still remains $56,805.65, all of which should be written off. See Statements Nos. 1 and 3, herewith, for particulars.

The accounts for the Ottawa district stand thus:—

Dues accrued during the year to March 31, 1914	$24,580 38
Outstanding, March 31, 1913	9,120 13
	$33,700 51
Collected	24,555 07
Balance outstanding March 31, 1914	$ 9,145 44

Being composed of:—

Dues of 1889-90	$6,903 05
" 1890-91	28 42
" 1892-93	379 80
" 1896-97	196 71
" 1903-04	637 37
" 1911-12	723 63
" 1912-13	251 15
" 1913-14	25 31
	$9,145 44
Balance of dues outstanding prior to July 1, 1889, when this department took over the collection	$56,805 65

Hence are statements in detail.

No. 1.—Statement of amounts outstanding prior to July 1, 1889, uncollected March 31, 1914.

No. 2.—Statement of dues accrued at Ottawa since July 1, 1889, uncollected March 31, 1914.

No. 3.—Statement of dues accrued at Quebec prior to July 1, 1889, uncollected March 31, 1914.

No. 4.—Statement of the number of pieces of square timber, sawlogs, etc., which passed through the Ottawa works during the year ended March 31, 1914.

No. 5.—Statement of dues accrued from each of the slides and works of the Ottawa district during the year ended March 31, 1914.

Apart from the four accounts amounting to $1,028.57, all the revenue from the Ottawa slides and booms, since I took charge in 1889, has been collected, excepting such as should have been written off long ago, or a few items in dispute which I expect will have to be forgiven.

The apparent inconsistency between the small difference shown in the number of logs passed through the works during the year 1913-14 and the preceding year, and the wide difference between the revenues of these years, which show a falling-off of $18,348.40 during the past year, calls for explanation.

On the main Ottawa, including Cheneaux boom, the deficiency in 1914 was only $125.08, and on the Gatineau river $222.43, which small differences indicate that the quantities of logs brought to the mills were much about the same as in the previous year; the large deficiency was on the subsidiary streams where, in every case but the River Dumoine, the tolls are highest, the shortage being as follows:—River Petewawa $12,526.30, Madawaska $207.83, Coulonge $244.60, Dumoine $52.43, Black river $4,971.55, all less than in 1912-13.

Of the total difference, $18,348.40, those on the Petewawa and Black river account for $17,497.85, leaving less than $1,000 of the deficieney to be distributed over the other sources of revenue in the Ottawa district.

On the Petewawa, the cause for shortage was want of water to drive out the logs, although one large drive was purposely hung up by Mr. J. R. Booth, as well as his drive on the Black river, which largely accounts for the shortage on that river.

As I understand the case, the works of the Upper Ottawa Improvement Company on the main river became so congested with Mr. Booth's logs in 1912, he agreed not to drive any but such as he had in the main stream during 1913, and so allow the other operators to obtain their logs which had been held back by the accumulation of Mr. Booth's logs hence most of the timber that came through the Cheneaux Boom and Main River Ottawa works were logs that had been previously driven out of the smaller streams, or made on the main river.

While the outlook for the current year is very discouraging, on account of low water due to the scarcity of snow last winter and lack of rain this spring, I look for a substantial increase which will bring up the revenue to near the normal figure. Although, at the date of this writing, it is feared that unless there is an improvement in the near future, two of the largest operators will have to close their mills, the water being so low that their logs cannot be brought down in time to supply them.

ST. MAURICE DISTRICT.

The revenue accrued from this district was $50,009.66, being $11,036.25 less than in 1912-13.

The collections amounted to $50,029.66, $10,991.25 less than 1912-13.

Uncollected of 1909-10 dues, $3.709.62 disputed. There is also a small account of the past year unpaid, amounting to $5; with the exception of this, $3,714.62, all the dues accrued in this district since I took it in 1892 have been collected.

The amount outstanding prior to July 1, 1892, remains unchanged, viz., $14,481.49, and should be written off for reasons assigned in Statement No. 6 herewith.

The number of pieces of all kinds of timber that passed through the works was equivalent to 5,760,283 pulp and sawlogs, or 1,541,897 pieces less than the previous year.

The revenue in this district has also been disappointing, and that it is so is largely due to two causes, one being that the policy prohibiting the exportation of pulpwood from Crown lands obliged one of the concerns at Three Rivers to restrict their cut to deals, boards, etc. Hence, we have lost the revenue on the large quantity of pulpwood which they formerly cut up there. The other cause was that the largest paper-mill on the river is making such improvements as precluded the use of the ground on which they formerly stored their wood for winter use. Hence, they held back a very large quantity in the smaller streams and were obliged to purchase wood wherever they could get it all last winter. However, their new storage arrangements are ready, and I look for a large increase in their account for this year.

On the whole, the prospects on the St. Maurice just now are the reverse from encouraging. All reports are to the effect that scarcity of water prevails, and unless copious rains soon set in in the north many of the mills will be short of logs this season.

As it is, the mills at Three Rivers, up to the 15th inst., were practically idle, and the booms absolutely empty. Hence, up to the present, it is the most discouraging season in my experience of twenty-five years, for never in that time has the water been so low all through the spring, and there does not appear to be much chance of improvement in the near future. Nevertheless, there does not seem to be any doubt that the logs laid on the main stream would be available this season, but on the smaller streams where there are storage dams, the lack of water makes the driving of the logs on them appear very dubious, and as many of them are on such streams, it would not be surprising if there should be a serious shortage in the revenue from this district this year.

NEWCASTLE DISTRICT.

The dues accrued from this district amounted only to $12, being $14.35 less than the previous year, all collected at this date.

The tolls outstanding on March 31, 1913, amounted to $3,556.89, of which $3,521.19 should be written off in accordance with a judgment in the Exchequer Court; $35.70 will also have to be forgiven, the debtor being hopelessly insolvent at the time of his decease.

Full particulars of amount outstanding will be found in Statement No. 7 herewith.

That the tolls from this district should amount to the insignificant sum of $12 instead of over $1,400 might strike one as very peculiar, to say the least.

The works at Burleigh Falls, consisting of a dam and side piers, from which we derive the bulk of the revenue of this district, were very badly shaken in the spring of 1912. Timber was purchased and preparations made to repair these works in the fall of that year, but the water was so high all through the autumn and winter that it was found impossible to make the least progress with them. The spring floods of 1913 carried away the remains of the dam and one side pier completely. Hence the portion remaining was of little or no help to the lumbermen, and no tolls were charged up lest we should have to contest claims for delay and extra expense incurred through the absence of the works.

SAGUENAY DISTRICT.

The dues accrued during the year ended March 31 last amounted to $2,281.49, all paid, being $1,069.63 less than in 1912-13.

The shortage of $1,069.63 in this district can only be explained by the fact that the largest company obtaining logs through Saguenay boom, now bring a large proportion of them to the mill over the Ha Ha Bay and Saguenay railway, instead of driving them down the Saguenay river.

GRAVING DOCKS.

ESQUIMALT GRAVING DOCK.

The revenue from this service was $21,253.24, being $11,689.28 more than the previous year, one account for $403 not included, being unpaid by Naval Department. (See Statement No. 8.)

Of the 162 days the dock was occupied during the year, it was used for 37 days by H. M. and C. G. vessels. The total number of vessels docked was twenty-five, of 57,210 tons.

LEVIS GRAVING DOCK.

The revenue was $1,971.12 more than for the year 1912-13, being $30,334.67. (See Statement No. 9.)

During the season of navigation, the dock was occupied for 302 days by twenty-one vessels of 34,203 tons.

During the winter of 1913-14, it was occupied by ss. *Lord Strathcona* and *Cascapedia*, and dredges *International* and *Progress*.

KINGSTON GRAVING DOCK.

The revenue was $10,000.

On May 1, 1910, the Kingston Shipbuilding Company took possession of the dock under lease, the rental of which, $10,000 per annum, was payable at the end of each year.

RENTS.

With regard to the collection of the rentals under leases granted by this department, which was formerly done by the Inland Revenue Department,—

Statements Nos. 10 and 12 show in detail the condition on March 31, 1914, of the accounts taken over on March 31, 1909, from the Inland Revenue Department.

Statement No. 11 shows the condition of land sales and interest account, also from Inland Revenue Department, which shows no change for many years.

Several of the unsettled accounts are of many years' standing, some are under investigation, and others, I expect, will have to be written off, for good and sufficient reasons.

Exclusive of the above-mentioned rentals, the revenue accrued from Government properties has been an important item, being in 1913-14, including sales and interest, $128,643.90, or $40,433.40 more than in 1912-13.

Of this sum, $113,929.50 was collected; $6,370.95 written off for commission and expenses, in lieu of repairs, or on account of poverty, and $19,316.80 was outstanding at the close of the year.

The greater portion of the increase in this account is due to the rentals from property on Wellington street, and streets adjoining, expropriated or purchased for new building sites, and Toronto Post Office site.

A considerable portion of the amount uncollected is retained by tenants, pending settlement of their claims for compensation under leases, and for other reasons. I expect that, with the exception of a few small accounts, the most of this indebtedness will be cleared off this year as to these properties.

The amount outstanding may appear large, but it must be borne in mind that included therein are Sussex Street rents, carried over from last year, and $1,333.34 due on sale in New Westminster, B.C.

In the case of the Sussex Street rents, most of the buildings, since demolished, were old and in very bad condition; only the poorer class of people would rent them, and when these, as in many instances, were overtaken by sickness and other misfortunes, we could not put them on the street, and they could not pay: hence the source of this deficit, which will have to be written off in many cases.

The Wellington Street properties are being well looked after by four agents, and I do not anticipate much loss in the rentals from this source.

The large increase in this account has been a serious load in this office; nevertheless, I am glad to say that it has been kept well up to date.

Statement of rents collected, Public Works revenue, during the year ended March 31, 1914.—

Hydraulic and other rents	$3,355 00
Sussex Street block, Ottawa	2,309 20
Egan block, Wellington (south), Ottawa	8,001 63
Wellington street (north), Ottawa	53,248 35
Province Saskatchewan	5,908 00
" Alberta	560 00
" Manitoba	441 00
Sundry places	5,078 00
Public building sites	1,911 91
Rents, old post office building, Victoria, B.C.	7,488 32
Toronto Post Office site	21,645 83
Sales and interest	7,337 26
	$117,284 50

The following comparative table of Public Works revenue accrued during the year ended March 31, 1914, compared with that of the fiscal year ended March 31, 1913, shows at a glance on what accounts increases and decreases herein reported have occurred:—

—	Year ended March 31, 1914.	Year ended March 31, 1913.	Increase. 1914	Decrease. 1914.
Slides and booms.	$ cts.	$ cts.	$ cts.	$ cts.
Ottawa district	24,580 38	42,928 78		18,348 40
St. Maurice district	50,009 66	61,045 91		11,036 25
Newcastle district	12 00	1,447 00		1,435 00
Saguenay district	2,281 49	3,351 12		1,069 63
Net decrease	76,883 53	108,772 81		31,889 28
Graving docks.				
Esquimalt, B.C	21,253 24	9,563 96	11,689 28	
Kingston, Ont	10,000 00	10,000 00		
Lévis, P.Q	30,334 67	28,363 55	1,971 12	
Net increase $13,660 40 (of which $98.11 was written off)	61,587 91	47,927 51	13,660 40	
Rents and sales.				
Hydraulic rents	3,498 00	3,512 00		14 00
Minor public works	26 00	26 00		
Other public properties	128,643 90	88,210 50	40,433 40	
Net increase $40,419.40	132,167 90	91,748 50	40,433 40	14 00
Accrued.				
Slide and boom dues	76,883 53	108,772 81		31,889 28
Graving docks	61,587 91	47,927 51	13,660 40	
Rents and sales	132,167 90	91,748 50	40,419 40	
Net increase $22,190.52	270,639 34	248,448 82	54,079 80	31,889 28
Collected.				
Slide and boom dues	76,883 22	110,108 34		33,225 12
Graving docks	61,489 80	47,927 51	13,562 29	
Rents and sales	117,284 50	88,851 81	28,432 69	
Net increase $8,769.86	255,657 52	246,887 66	41,994 98	33,225 12

In conclusion, I have to acknowledge the uniform courtesy and cheerful assistance accorded me at all times by the officers of the department with whom I have been brought in contact during the year.

I have the honour to be,
Your obedient servant,

EDW. T. SMITH,
Collector of Public Works Revenue.

No. 1.—STATEMENT of Slidage and Boomage from the Ottawa Slides and Works, accrued prior to July 1, 1889, outstanding March 31, 1914.

By whom due.	Bad and Doubtful Debts.	Chaudière Boomage in Suspense.	Other Slide and Boom Dues disputed	Total outstanding on Sept. 30, 1902.	Year to which Dues belong.	Remarks.
	$ cts.	$ cts.	$ cts.	$ cts.		
John and Wm. McLean	53 14			53 14	1873	Insolvent.
John Rowan	342 50			342 50	1872-1873	"
Lemieux and Charette	21 30			21 30	1873	"
Taillon and Lapierre	148 10			148 10	1873-1874	"
Mosgrove and McHarry	261 42			261 42	1873-1874	"
W. C. Wells	600 90			600 90	1873-1874	"
Dufresne and McGarity	528 80			528 80	1874-1875	"
Walton Smith	171 46			171 46	1874-1875	"
A. H. Baldwin	3,507 92			3,507 92	1871 to 1874	"
Hon. James Skead	9,807 65			9,807 65	1861, 1863, 1864, 1869, 1875 to 1878.	"
Batson and Currier	5,558 70			5,558 70	1875 to 1877	"
A. F. A. Knight	546 30			546 30	1878	"
James Walker	11 25			11 25	1877	"
R. Campbell & Son	1,558 50			1,558 50	1879 to 1881	"
James G. Bryson	73 50			73 50	1886	"
Costello Bros	90 62			90 62	1882	"
N. E. Cormier	428 34			428 34	1883	"
James Yuhill	9 29			9 29	1876	Overcharge.
J. and B. Grier	76 84			76 84	1883	"
R. and W. Conroy	95 42			95 42	1882-1883	" reported in return S—38, for March, 1886.
A. P. White	101 00			101 00	1881	"
R. Caldwell & Son	4 33			4 33	1887	"
J. R. Booth		9,871 92	398 88	10,270 81	1881 to 1888	$398.88, counter claim for damages by the breaking of Coulonge boom.
Perley and Pattee		8,889 85		8,889 85	1881 to 1888	
The Bronson and Weston Lumber Co.		8,180 79		8,180 79	1881 to 1888	
Pierce & Co		462 18		462 18	1888	
G. A. Grier & Co		1,060 59		1,060 59	18-6-1887	*Chaudière boomage. These parties claim that they have maintained these works wholly at their own expense since 1881.
Estate late Levi Young		1,461 20		1,461 20	1881 to 1885	
Wm. Mason		413 85		413 85	1881 to 1888	
Gilmour & Co		406 27		406 27	1884	
John Rochester		258 88		258 88	1881 to 1883	
J. and G. Bryson			252 20	252 20	1886	Counter claim for damages by breaking of Coulonge works.
	23,997 28	31,006 54	651 08	55,653 90		

DEPARTMENT OF PUBLIC WORKS,
OTTAWA, June 29, 1914.

EDW. T. SMITH,
Collector of Slide and Boom Dues

No. 2—STATEMENT of Slide and Boom Dues accrued from the Ottawa River Works, since July 1, 1889, outstanding March 31, 1914.

Name.	Year to which dues belong.	Chaudière Boomage in suspense.	Ordinary dues.	Total.	Remarks.
		$ cts.	$ cts.	$ cts.	
J. R. Booth	1889-90	2,561 69		2,561 69	Chaudière boomage reported to Council and referred to Treasury Board, should be written off.
The Bronson & Weston Lumber Co.	1889-90	2,056 96		2,056 96	
Perley & Patee	1889-90	1,203 26		1,203 26	
Wm. Mason & Sons	1889-90	167 66		167 66	
Pierce & Co.	1889-90	913 48		913 48	
Alex. Fraser, acct. Thos. Stephens	1890-91		28 42	28 42	Legal action taken to recover this.
J. R. Booth	1892-93		379 80	379 80	Retained by Mr. Booth in settlement of account due him, which the Auditor General refused to pay as Mr. Booth appeared to be in arrears in this and statement No.1.
Bryson & Fraser	1896		196 71	196 71	Have counter claim for work done on slide to this amount.
J. R. Booth	1903		339 27	339 27	Petewawa slidage disputed.
Hawkesbury Lumber Co.	1903		298 10	298 10	" " "
Pembroke Lumber Co.	1911-2-3		1,000 09	1,000 09	Counter claim for building dam.
		6,903 05	2,242 39	9,145 44	

DEPARTMENT OF PUBLIC WORKS,
OTTAWA, JUNE 29, 1914.

EDW. T. SMITH,
Collector of Slide and Boom Dues.

No. 3.—Statement of outstanding Slide Dues, Ottawa district, bonds for which were sent to Quebec for collection.

Name.	From 1860.	From 1861.	Total.
	$ cts.	$ cts.	$ cts.
Hon. James Skead	245 00	210 00	455 00
James Mair	....	696 75	696 75
	245 00	906 75	1,151 75

These amounts were uncollected, as the parties claimed damages for loss caused by the Madawaska boom breaking in 1860.

A decision on their claims was not arrived at till August 2, 1869. On the 5th idem, Messrs. Skead and Mair were notified that the department could not recognize their claim.

To the best of my knowledge, this decision was never communicated to the Collector of Slide Dues; consequently, these amounts remained in abeyance.

Since then, both parties died, and I believe both were insolvent at the time of their death.

EDW. T. SMITH,
Collector of Slide and Boom Dues.

Department of Public Works,
Ottawa, June 29, 1914.

No. 4.—Statement of the number of pieces of square timber, sawlogs, etc., that passed through the Government slides and works on the river Ottawa and its tributaries during the fiscal year ended March 31, 1914:—

	Pieces.
Square timber	None
Sawlogs	3,989,283
Boom and dimension timber	73,018
Cedars	6,595
Railroad ties	37,059
Fence posts	7,441
Telephone poles	658
	4,114,054

Also 56,511.73 cords of pulpwood.

The revenue accrued on the above was $24,580.38.

EDW. T. SMITH,
Collector of Public Works Revenue.

Department of Public Works,
Ottawa, June 29, 1914.

No. 5.—STATEMENT showing the Dues accrued on the undermentioned works on the river Ottawa and its tributaries during the fiscal year ended March 31, 1914.

River or other Improvement—	Amount.
Main Ottawa	$ 2,128 07
Chenaux boom	3,910 46
River Petewawa	5,949 84
Madawaska	61 29
Coulonge	4,312 75
Dumoine	148 20
Black river	2,542 91
Gatineau	5,525 04
Interest	1 82
	$24,580 38

EDW. T. SMITH,
Collector of Public Works Revenue.

DEPARTMENT OF PUBLIC WORKS,
OTTAWA, June 29, 1914.

No. 6.—STATEMENT of Slide and Boom Dues from the St. Maurice slides and works outstanding on March 31, 1914.

Name.	Year to which dues belong.	Amount.	Total.	Remarks.
		$ cts.	$ cts.	
George Baptist, Son & Co	1878	469 95		
"	1879	2,110 62		
"	1880	1,696 18		
"	1881	293 69		
"	1882	165 80		Have counter claims for damages to loss caused by the booms not being stretched early enough in the spring of 1878 to prevent the logs going over the chute.
"	1884	118 50		
"	1888	4 28		
			4,859 02	
Ross, Ritchie & Co	1878	3,072 84		The claims were submitted to Special Commissioner, Mr. McDougall, afterwards Judge, who, after hearing the evidence on both sides, recommended that the claims of the parties should be allowed.
"	1883	2,173 68		
"	1884	38 96		
"	1886	1 62		
"	1887	4 38		
			5,281 48	
Alex. Baptist	1879		2,116 96	
Wm. Ritchie & Co	1888	779 24		
"	1889	332 11		
			1,111 35	Of this amount $754 20 is claimed to be an overcharge. Insolvent.
Ritchie Bros.	1886	413 13		
"	1887	634 71		
			1,048 14	This amount is composed of overcharges in 1886 and 1887 of $442.76 and overpayment in 1884 of $205.38.
G. B. Hall	1890		49 34	Insolvent.
T. E. Normand	1890		42 28	Claims that this balance is an overcharge.
Treffle Biron	1891		0 92	Would cost more to collect than it is worth.
			*14,481 49	
Laurentide Paper Co	1909	3,709 62	3,709 62	
J. H. Dansereau	1913		5 00	Counter claims for damages.
			18,196 11	

* To make this balance agree with the Public Accounts, there should be deducted $7.93 over credited Alex. Baptist, and $217.17 added thereto, being $190.40 paid July 23, 1884, and $26.77 overcharged in error to Wm. Little, not in any of the collector's returns, which will give balance due September 30, 1894, of $14,690.73.

EDW. T. SMITH,
Collector of Public Works Revenue.

DEPARTMENT OF PUBLIC WORKS,
OTTAWA, June 29, 1914.

No. 7.—Statement of Slides and Boom Dues accrued from the Newcastle and Trent River works, remaining uncollected March 31, 1914.

Name.	Year to which dues belong.	Amounts disputed.	Ordinary dues.	Total.	Remarks.
		$ cts.	$ cts.	$ cts.	
Irwin & Boyd	1881	59 79		59 79	Insolvent.
Thomson & McArthur	1880	52 78		52 78	
Jabez Thurston	1882	12 50		12 50	
McDougall & Ludgate	1879	65 07		65 07	
Bigelow & Trounce	1882 to 1885	216 21		216 21	
R. G. Strickland	1882, '83, '85, '86, and '87	215 08		215 08	
Est. late Geo. Hillard	1877 to 1883 and 1886	354 15		354 15	Dead and estate distributed.
T. G. Hazlett	1881, '82, '84, and '89	885 25		885 25	According to judgment in Exchequer Court, *re* Boyd *vs.* Smith, these cannot be collected.
J. M. Irwin	1882, '83, '85 and '88	698 45		698 45	
D. Ullyot	1881 to 1887	547 68		547 68	
Green & Ellis	1881 to '83, '85, '88 and '89	157 01		157 01	
A. W. Parkin	1884, '85, '88, '90 and '91	65 92		65 92	
The Dickson Estate	1883	137 50		137 50	
Alfred McDonald	1888	40 80		40 80	
John Parkin	1889	13 00		13 00	
John Dovey	1894, '95, '96		35 70	35 70	Dead, insolvent.
		3,521 19	35 70	3,556 89	

EDW. T. SMITH,
Collector of Public Works Revenue.

Department of Public Works,
Ottawa, June 29, 1914.

No. 8.—THE DRY DOCK AT ESQUIMALT, B.C.—STATEMENT of Dues and other charges collected during the year ending March 31, 1914.

Name of Vessel Docked.	Tonnage.	Period of Dockage. From		To		Dockage Charges.	Other Charges.	Total.
						$ cts.	$ cts.	$ cts.
SS. Princess Adelaide	3,060	April	3	April	5	604 00	.....	604 00
Sp. Fingal	2,563	"	8	"	8	200 00	2 40	202 40
SS. Lord Derby	3,757	"	9	June	7	6,696 00	456 80	7,152 80
SS. Princess Charlotte	3,844	June	10	"	12	392 20	15 00	407 20
H.M.C.S. Rainbow	1,911	"	16	"	20	608 00	Balance.	509 86
Barge Oregon	1,314	"	21	"	23	265 70	1 80	267 50
H.M.S. Shearwater	980	"	23	"	27	204 63	.....	204 63
SS. Prince Rupert	3,379	July	2	July	2	200 00	.....	200 00
SS. Dolaura	890	"	3		4	200 00	1 20	201 20
SS. Herakles	4,340	Aug.	3	Aug.	7	654 00	2 40	*678 00
Sp. Ricart de Soler	2,631	"	14	"	16	331 55	5 40	336 95
SS. Prince George	3,372	"	17	"	18	656 00	11 40	667 40
H.M.S. Algerine	1,100	October	7	Oct.	23	670 68	.....	670 68
Sp. Pottallock	2,254	"	24	"	26	486 00	1 20	487 20
D.G.S Estevan	.....		Water	Supplied.		.....	34 20	34 20
Cruiser Malaspina	392	Nov.	25	Nov.	26	319 60	1 80	321 40
H.M.S. Algerine	1,100	"	27	Dec.	28	463 48	.....	463 48
SS. Oceano	4,657	Dec.	15	"	18	668 00	2 40	670 40
				1914.				
SS. Prince George	3,372	"	22	Jan.	23	3,435 00	184 80	3,619 80
SS. Sophia	2,320	Jan.	29	Feb.	1	574 00	30 60	604 60
SS. Leona	700	Feb.	25	"	28	350 00	1 20	351 20
SS. Princess Mary	1,717	March	4	March	9	457 55	13 20	470 75
Cruiser Galiano	393	"	10	"	12	400 00	3 00	(unpaid)
Cable Ship Restorer	3,179	"	16	"	19	676 85	23 40	700 25
SS. Prince Rupert	3,379	"	20	"	23	616 00	3 60	619 60
D.G.S. Estevan	606	"	24	"	28	500 00	9 60	509 60
SS. Arna	.....		Entrance	Fee.		200 00	.....	200 00
								21,155 13

*$21.60 eye collected, refunded.

EDW. T. SMITH,
Collector of Public Works Revenue.

DEPARTMENT OF PUBLIC WORKS,
June 29, 1914.

No. 9.—The Dry Dock at Lévis, Que.—Statement of Dues and other charges collected during the year ending March 31, 1914.

Name of Vessel Docked.	Tonnage.	Period of Dockage. From	Period of Dockage. To	Dockage Charges.	Other Charges.	Total.
				$ cts.	$ cts.	$ cts.
SS Lord Strathcona		Wintering		200 00		200 00
SS. Cascapedia		"		800 00		800 00
Dredge Galviston	1,271	Apr. 28	May 13	1,150 73		1,150 73
SS. Waconsta		Entry Fee		200 00		200 00
SS. Waconsta	3,521	May 15	May 20	504 20	52 00	556 20
SS. Lady Grey	723	" 22	June 12	1,200 00	3 00	1,203 00
Dredge International		Wintering		600 00		600 00
Dredge Progress		"		600 00		600 00
Tug Storm King		"		400 00		400 00
Tug Archie Stewart		"		400 00		400 00
Tug Monitor	62	Apr. 23	Apr. 28	300 00		300 00
SS. Cartier	632	" 23	" 28	300 00		300 00
SS, Wabana		Entry Fee		200 00		200 00
Dredge International					171 90	171 90
Dredge Progress					125 25	125 25
Dredge Ottawa					3 75	3 75
Tug Storm King					35 94	35 94
SS. Wabana	4,804	June 13	July 28	5,604 96	91 85	5,696 81
SS. Colomb		Entry Fee		200 00		200 00
SS. Crown of Cordova		"		200 00		200 00
SS. Crown of Cordova	3,472	July 30	Aug. 18	1,991 60	14 00	2,005 60
SS. Lady of Gaspé	1,189	Aug. 18	" 25	622 03	1 00	623 03
Barge Stormont		Entry Fee		200 00		200 00
SS. Canada		"		200 00		200 00
Barge Stormont	1,955	Aug. 25	Sept. 16	1,733 54	11 00	1,744 54
SS. Colomb	559	" 25	" 16	1,000 00		1,000 00
SS. Whakatane	5,754	" 17	" 20	895 24	10 40	905 64
SS. Plessis		Entry Fee		200 00		200 00
SS. Saguenay		"		200 00		200 00
SS. Montcalm	1,432	May 22	June 22	1,509 92	18 00	1,527 92
SS. Champlain	522	" 22	" 22	1,200 00	4 00	1,204 00
SS. Saguenay	2,777	Sept. 23	Oct. 2	1,044 32		1,044 32
SS. Plessis	559	" 17	" 2	600 00		600 00
		1912.	1912.			
Dredge Progress	376	Nov. 7	Nov. 30	1,200 00		1,200 00
		1913.	1913.			
D.G.S. Montmagny	1,269	July 30	Aug. 18	1,035 26		1,035 26
Dredge Beaujeu	2,049	Oct. 4	Oct. 18	1,400 78		1,400 78
SS. Druid	503	Oct. 4	" 18	750 00		750 00
" Bellechase	417	Nov. 10	Nov. 17	550 00		550 00
" Lady Grey	733	" 17	" 25	600 00		600 00
	34,579			29,792 58	542 09	30,334 67

EDW. T. SMITH,
Collector of Public Works Revenue.

Department of Public Works,
Ottawa, June 29, 1914.

No. 10.—Hydraulic and other Rents, etc..

Balance due April 1, 1913.	Rents accrued up to March 31, 1914.	Total.	Location.	Occupant.
$ cts.	$ cts.	$ cts.		
	200 00	200 00	Ottawa River	Royal Trust Co.
	100 00	100 00	"	"
	300 00	300 00	"	"
	100 00	100 00	"	"
	100 00	100 00	"	"
	300 00	300 00	"	"
	400 00	400 00	"	"
	300 00	300 00	"	"
	100 00	100 00	"	Ottawa Electric Railway Co.
	600 00	600 00	"	The Ottawa Power Co
600 00	200 00	800 00	"	Royal Trust Co. (In abeyance)
	208 00	208 00	"	J. R. Booth
	10 00	10 00	"	Royal Trust Co
	100 00	100 00	"	"
	96 00	96 00	"	"
136 00		136 00	"	Mary Conroy
570 84		570 84	"	Royal Trust Co
25 00	25 00	50 00	"	"
200 00		200 00	"	Merchants Bank of Canada
96 00		96 00	"	" "
	1 00	1 00	"	Ottawa Electric Co.
380 00		380 00	"	John Rankin
5 00	5 00	10 00	"	The Ottawa Electric Co.
	50 00	50 00	"	Royal Trust Co.
	1 00	1 00	"	Alfred Desjardins
	100 60	100 00	"	Royal Trust Co.
10 00	10 00	20 00	"	Ottawa Electric Co.
	1 00	1 00	St. Lawrence	Quebec Harbour Commissioners
275 00		275 00	"	Richelieu and Ontario Navigation Co.
1 00	1 00	2 00	Quebec	Corporation of Quebec
1 00	1 00	2 00	"	Narcisse Blais
	1 00	1 00	Rondeau Harbour	School Trustees
	1 00	1 00	Collingwood	Great Northern Transit Co.
9 00	1 00	10 00	Ottawa	E. G. Laverdure
	1 00	1 00	Three Rivers	Corporation of Three Rivers
	100 00	100 00	"	Union Bag and Paper Co.
165 00		165 00	British Columbia	A. Peel
90 00		90 00	"	Jonathan Maury
	12 50	12 50	"	Lemon Gonnason Co.
	12 50	12 50	"	John Taylor
	25 00	25 00	"	Joseph Spratt
	5 00	5 00	"	George Hnff
70 00		70 00	River du Lievre	Dominion Phosphate Co.
1 00		1 00	Charlottetown	Rt. Rev. Bishop McIntyre
	16 00	16 00	Antigonish, N.S.	Burnham Morrill & Co.
2 00	1 00	3 00	Owen Sound	Grand Trunk Railway
240 00		240 00	Windsor	Archie McNee
20 00	5 00	25 00	Bayfield, N.S	Chas. L. Gass
1 00	1 00	2 00	"	"
	5 00	5 00	Village of Brook	Wm. Pedwell
1 00	1 00	2 00	Walkerton	D. Robertson and J. Rowland
1 00		1 00	British Columbia	Canadian Pacific Ry. Co
	1 00	1 00	Lévis, P.Q.	Cyril Robitaille
2,899 84	3,498 00	6,397 84		

Department of Public Works,
Ottawa, May 27, 1914.

Lessees' Accounts for the year ending March 31, 1914.

Description of Property.	Date to which account is made up.	Paid during the Year.	Balance due on March 31, 1914.	Total.
		$ cts.	$ cts.	$ cts.
Lot B & C Chaudière street service ground	Dec. 31, 1913.	200 00		200 00
Lot D	" 31, 1913.	100 00		100 00
Lots H, I, J, grist mill, North Head street	" 31, 1913.	300 00		300 00
Lot K, Fanning Mill, South Head street	" 31, 1913.	100 00		100 00
Lot L, service ground	" 31, 1913.	100 00		100 00
Lots Q, R, T, service ground, North Middle street	" 31, 1913.	300 00		300 00
Lots M, N, O, P, no water	" 31, 1913.	400 00		400 00
Lots E, F, G, South Head street	" 31, 1913.	300 00		300 00
Lot S, service ground	" 31, 1913.	100 00		100 00
Lots U, V, W, X, Y and Z, service ground	" 31, 1913.	600 00		600 00
Two strips of land, (in abeyance)	" 31, 1913.		800 00	800 00
Portion of Government reserve, head of slide	Sept. 20, 1914.	208 00		208 00
Bridge over slide	June 30, 1914.	10 00		10 00
Strip of land, Amelia island	Dec. 31, 1914.	100 00		100 00
Reserve head of Chaudiere island	Jan. 1, 1915.	96 00		96 00
Small island in Deschenes rapids	Jan. 1, 1912.		136 00	136 00
Portion Lot 39, Con. A, Nepean	Jan. 31, 1884.		570 84	570 84
Excavated Channel, slide and two dams, Little Chaudière	Mar. 1, 1915.	50 00		50 00
Water lot opposite Lot 30, Con. A, Nepean			200 00	200 00
Three small islands, Ottawa river			96 00	96 00
Covering over portion of Ottawa slides	Nov. 10, 1914.	1 00		1 00
East portion, Hawley island	June 20, 1891.		380 00	380 00
Piece of land, Victoria island	Mar. 11, 1914.	5 00	5 00	10 00
Land south side Middle street, Victoria island	Aug. 31, 1914.	50 00		50 00
Land Longue Point Rouge, Templeton Co. Ottawa	Oct. 4, 1914.	1 00		1 00
Southwest of Lot No. 1, Amelia island	Oct. 9, 1913.	100 00		100 00
Lot Pa, South Head street	Jan. 10, 1915.	20 00		20 00
Lot near Custom House, Quebec	Aug. 31, 1914.	1 00		1 00
Roadway from pier at Coteau Junction	July 1, 1909.		275 00	275 00
Old Prov. Gov. building and grounds	June 24, 1914.	2 00		2 00
Privilege to erect bridge on St. Charles river	Feb. 6, 1915.	1 00	1 00	2 00
Log building, former Custom House, Shrewsbury, Ont.	Sept. 11, 1913	1 00		1 00
Use of breakwater to store coal	Jan. 1, 1915.	1 00		1 00
S.E. half lot 8, Ottawa	Dec. 8, 1914.		10 00	10 00
Land Ile St. Christophe, river St. Maurice	Dec. 1, 1914.		1 00	1 00
Land Ile St. Christophe, river St. Maurice	July 1, 1913.	100 00		100 00
Portion of Assay Office, New Westminster			165 00	165 00
Portion of Assay Office, New Westminster			90 00	90 00
Permit for bulk-head in Victoria harbour	June 1, 1914.	12 50		12 50
Permit for bulk-head in Victoria harbour	June 1, 1914.	12 50		12 50
Privilege to built wharf on Lot A and C	June 1, 1914.	25 00		25 00
Permit to build wharf, lot A, Block 2, Sumas river	Aug. 13, 1914.	5 00		5 00
Permit for landing at Little Rapids, river de Lievre			70 00	70 00
Leave to drain to main service public building			1 00	1 00
Tract of land and water lot, McNair's Cove	Dec. 31, 1914.	16 00		16 00
Land west side of Sydenham river	Dec. 31, 1914.	2 00	1 00	3 00
Lot on Ouelette street, Windsor, Ont			240 00	240 00
Water lot	Dec. 8, 1914.		25 00	25 00
Water lot	June 9, 1914.		2 00	2 00
Water lot	Mar. 31, 1914.	5 00		5 00
Right of way over strip of land	Apr. 26, 1913.	2 00		2 00
Part Custom House lot, New Westminster	Apr. 14, 1914.	1 00		1 00
Ground Rent	Apr. 4, 1914.	1 00		1 00
		3,329 00	3,068 84	6,397 84

EDW. T. SMITH,
Collector of Public Works Revenue.

No. 11.—Hydraulic and other Rents, etc.,

Description of Property.	Number.	Date to which the account is made up.	Balances transferred to Public Works Department by O.C. of April 27, 1909.	Totals.
			$ cts.	$ cts.
Hamilton and Port Dover and Caledonia Bridge	1		12,092 83	12,092 83
Lot No. 1, Wolfe street	2		433 34	433 34
" 9 "	3		333 34	333 34
" 49 "	4		300 00	300 00
" 73 and 74, Tower street	5		147 80	147 80
" 64, Wolfe street, and 211 and 252 Ware street	6		248 40	248 40
" 67 and 68, Monument street	7		154 80	154 80
" 22 and 23, Wolfe street	8		600 00	600 00
" 32, Wolfe street	9		333 33	333 33
" 65 and 66, Wolfe street	10		533 33	533 33
" 31, Wolfe street	11		333 33	333 33
" 135, Church street	12		63 00	63 00
			15,573 50	15,573 50
	1	June 30, 1874	6,298 25	6,298 25
Lot No. 1, Wolfe street	2	May 1, 1889	558 00	558 00
" 9 "	3	" 1, 1889	120 00	120 00
" 49 "	4	" 1, 1889	306 00	306 00
" 73 and 74 Tower street	5	" 1, 1889	155 22	155 22
" 64, Wolfe street, and 211 and 252 Ware street	6	" 1, 1889	275 82	275 82
" 67 and 68, Monument street	7	" 1, 1889	208 95	208 95
" 22 and 23, Wolfe street	8	" 1, 1889	828 00	828 00
" 32, Wolfe street	9	Nov. 1, 1863	190 00	190 00
" 65 and 66, Wolfe street	10	" 1, 1863	298 68	298 68
" 31, Wolfe street	11	" 1, 1863	35 91	35 91
" 135, Church street	12	" 1, 1863	100 00	100 00
Monument Hotel	13	" 1, 1863	100 00	100 00
			9,474 83	9,474 83

Department of Public Works,
Ottawa, June 29, 1914.

SESSIONAL PAPER No. 19

Lessees' Accounts, 1913-1914.

Balances due on April, 1908.	Totals.	Number.	Location.	Name of Proprietors.
$ cts.	$ cts.			*Land sales—Principal Account.*
12,092 83	12,092 83	1	Hamilton and Port Dover road	Choat and Kern
433 34	433 34	2	Bonner's property, Quebec	Timothy Sullivan, now M. Murphy
333 34	333 34	3		John Bailey, now Alex. Powell
300 00	300 00	4		Abraham Thompson
147 80	147 80	5		John Boomer
248 40	248 40	6		John Garbatz, now J. C. Nolan
154 80	154 80	7		N. H. Bowen
600 00	600 00	8		Estate Robert Reid
333 33	333 33	9		John Chevalier
533 33	533 33	10		Daniel Holden
333 33	333 33	11		George Creeley
63 00	63 00	12		Thomas McAdam
15,573 50	15,573 50			
				Land Sales—Interest Account.
6,298 25	6,298 25	1	Hamilton and Port Dover road	Choat and Kern (matured)
558 00	558 00	2	Bonner's property, Quebec	Timothy Sullivan, now M. Murphy
120 00	120 00	3		John Bailey, now Alex. Powell
306 00	306 00	4		Abraham Thompson
155 22	155 22	5		John Boomer
275 82	275 82	6		John Garbatz, now J. C. Nolan
208 95	208 95	7		N. H. Bowen
828 00	828 00	8		Estate Robert Reid
190 00	190 00	9		John Chevalier
298 68	298 68	10		Daniel Holden
35 91	35 91	11		George Creeley
100 00	100 00	12		Thomas McAdam
100 00	100 00	13		Joseph Brook, tenant
9,474 83	9,474 83			

EDW. T. SMITH,
Collector of Public Works Revenue.

No. 12.—RENTS, etc., from minor Public Works.

Balance due on March 1, 1913.	Rents accrued up to March 31, 1914.	Total.	Occupant.	Description of Property.	Date to which Account is made up.	Paid during the year.	Balance due on March 1, 1914.	Total.
$ cts.	$ cts.	$ cts.				$ cts.	$ cts.	$ cts.
2,600 00	.....	2,600 00	R. Murdy	Dunnville Bridge.....	.....	.....	2,600 00	2,600 00
8,000 00	.....	8,000 00	Corp. of Galt and Dundas.....	Dundas and Waterloo Road.....	.....	.....	8,000 00	8,000 00
	1 00	1 00	North American Tel. Co.....	Government Telegraph Line between Bath and Amherst		1 00	.....	1 00
	25 00	25 00	Grand Trunk Ry. Co.....	Wiarton Docks.....	Jan. 14,'14	25 00	.....	25 00
43 75	.....	43 75	.....	Part of Building, Porland, N.B.....	.....	.....	43 75	43 75
10,644 37	26 00	10,670 37				26 00	10,643 75	10,669 75

EDW. T. SMITH,
Collector of Public Works Revenue.

DEPARTMENT OF PUBLIC WORKS,
OTTAWA, May 27, 1914.

PART VII

MISCELLANEOUS

CONTRACTS LET BY THIS DEPARTMENT.

PROPERTY PURCHASED OR SOLD.

PROPERTY LEASED TO OR BY THE DEPARTMENT.

DIRECTOR'S REPORT, NATIONAL ART GALLERY.

NAMES OF CHIEF OFFICERS OF THE DEPARTMENT.

NAMES OF OFFICIALS EMPLOYED ON SLIDES AND BOOMS.

NAMES OF PERSONS EMPLOYED ON GRAVING DOCKS.

NAMES OF ENGINEERS, FIREMEN AND CARETAKERS OF PUBLIC BUILDINGS.

FOR THE

FISCAL YEAR ENDED MARCH 31, 1914

Department of Public Works of Canada,

Law Clerk's Office,

Ottawa, August 31, 1914.

Sir,—I have the honour to transmit the following statements concerning the transactions of the department during the last fiscal year, with respect to contracts and property, and which are required for insertion in the annual report, 1913-14, viz:—

No. 1.—Statement of contracts let by this department during the year ended March 31, past.

No. 2.—Statement of property purchased and sold by the department during the same period.

No. 3.—Statement of property leased to and by the said department during the same period.

No. 4.—A list of some of the Public Acts of the Parliament of Canada, passed at the last session, and having reference to the department.

I have the honour to be, sir,
Your obedient servant,

J. A. CHASSE,
Law Clerk.

R. C. Desrochers, Esq.,
Secretary of the Department of Public Works,
Ottawa, Ont.

STATEMENT

SHOWING

1st.—CONTRACTS LET BY THE DEPARTMENT OF PUBLIC WORKS OF CANADA, FROM APRIL 1, 1913, TO MARCH 31, 1914.

2nd.—PROPERTY PURCHASED OR SOLD BY THE DEPARTMENT OF PUBLIC WORKS DURING THE FISCAL YEAR ENDED MARCH 31, 1914.

3rd.—PROPERTY LEASED TO AND BY THE DEPARTMENT OF PUBLIC WORKS DURING THE FISCAL YEAR ENDED MARCH 31, 1914.

No. 1.—Contracts let by the Department of Public Works of Canada, from April 1, 1913, to March 31, 1914.

Works.			Names of Contractors.	Date of Contract.	Amount.
Public Buildings.					$ cts.
Nova Scotia.					
Amherst	Post Office	Coal, per ton—Bit	Maritime Coal R. & P. Company		4 30
"	Drill Hall	Construction of	Rhodes Curry Co., Ltd.	Jan. 8, 1914	81,100 00
Annapolis	Post Office	Coal, per ton—Bit	G. A. Hawkesworth		6 20
Antigonish	"	" "	Edward Haley		5 00
Arichat	"	" Ant., nut	C. P. Terrio		8 75
Baddeck	"	" Bit	A. G. McDonald		4 75
Bridgewater	"	" "	Intercolonial Coal Mining Co		5 60
Canso	"	" Ant., furn	A. N. Whitman & Son		8 00
"	"	" Bit	" "		6 15
Dartmouth	"	" "	S. Cunard & Company		4 80
Digby	"	" "	W. E. Van Blearcom		6 25
Glace Bay	"	" "	Dominion Coal Co		4 10
Guysborough	"	" "	Lewis Hart & Company		6 10
Halifax	New Custom-house	" "	S. Cunard & Company		5 35
"	Post Office	" "	" "		5 35
"	Immigration Building	" "	H. D. Mackenzie Co		5 25
"	" "	" Ant., furn	" "		7 00
"	Detention Hospital	" Bit	" "		5 25
"	Examining Warehouse	" "	S. Cunard & Company		5 35
"	Post Office	Alterations, etc., to fittings	Thompson & Theakston	Feb. 9, 1914	2,400 00
Inverness	"	Coal, per ton—Bit	Inverness Railway and Coal Co		3 75
Kentville	"	" "	C. L. Dodge		5 70
"	"	" Ant., furn	"		7 90
Liverpool	"	" Bit	Southern Salvage Co		5 25
Lunenburg	"	" Ant., nut	A. H. Anderson		6 95
"	"	" " stove	"		6 95
New Glasgow	"	" Bit	Acadia Coal Company		4 50
North Sydney	Immigration Hospital	" "	H. G. Campbell		3 50
Parrsboro	Post Office	Fittings	A. E. Nichols	Nov. 10, 1913	1,465 00
"	"	Coal, per ton—Bit	W. J. Berry		4 50
Pictou	Custom-house	" "	Intercolonial Coal Mining Co		4 80
"	Post Office	" "	" " "		4 80
Shelburne	"	" "	Jos. McGill		5 60
Springhill	"	" "	Dominion Coal Company		4 25
Sydney	"	" "	" "		3 50

Sydney Mines	"	"	"	"	H. G. Campbell		3 50
Truro	"	"	"	"	W. J. Kent		4 85
Westville	Post Office	"	Coal, per ton	Bit.	Intercolonial Coal Mining Co.		4 25
Windsor	"	"	"	"	J. H. Smith & Co		4 59
Wolfville	Public Building	"	Fittings		Rhodes, Curry Co., Ltd	Aug. 11, 1913	2,000 00
"	Post Office	"	Coal, per ton	Bit.	R. E. Farris & Sons		5 40
Yarmouth	"	"	"	Ant., nut	L. E. Baker & Co		6 87
"	"	"	"	" egg	" "		6 87
			Prince Edward Island.				
Charlottetown	Dominion Building	"	Coal, per ton	Bit.	Geo. E. Full		5 30
"	Old Bank Building	"	"	"	Lyons & Company		5 30
Georgetown	Post Office, &c	"	"	Ant., furn	Poole & Thompson		6 95
"	"	"	"	" nut	" "		6 95
Montague	"	"	"	Bit.	" "		4 65
"	"	"	"	Ant., egg	" "		6 95
Souris	"	"	"	" "	Matthews & McLean		8 40
"	"	"	"	" nut	Lyons & Company		8 40
Summerside	"	"	"	" egg	R. T. Holman		7 10
"	"	"	"	Bit.	"		4 75
Tignish	"	"	"	"	Tignish Trading Company		6 50
"	" and Customs		Fittings		J. B. Guilbault	April 22, 1913.	1,800 00
"	Public Building		Electric lighting plant		The Sun Electric Company	Nov. 15, 1913.	1,275 00
			New Brunswick.				
Bathurst	Post Office		Coal, per ton	Ant,, egg	Bathurst Lumber Company		9 00
"	"	"	"	Bit.	" " "		6 50
Campbellton	"	"	"	"	R. K. Shives		5 75
Chatham	"	"	"	"	E. Johnson		5 50
"	"	"	"	Ant., nut	"		7 75
Dalhousie	Public Building		Electric wiring		J. A. L. Ellacott	Jan. 19, 1914.	791 00
"	Post Office		Coal, per ton	Ant,, furn.	Chas. Powell		9 00
"	"	"	"	Bit.	"		7 00
Fairville	"	"	"	"	C. E. Colwell		5 85
Fredericton	"	"	"	Ant., egg	S. L. Morrison		8 50
"	"	"	"	" nut	"		8 50
"	Post Office Building		Construction of		Falconer & McDonald	April 16, 1913.	133,700 00
Grand Falls	Post Office		Coal, per ton	Ant., egg	R. P. & W. F. Starr		10 00
Hampton	" Building		Construction of		British American Construction Co., Ltd.	June 26, 1913.	25,000 00
Hartland	"		Coal, per ton	Bit.	W. F. Dibblee & Son		7 75
Marysville	"	"	"	Ant., egg	S. L. Morrison		9 50
"	"	"	"	" nut	"		9 50
Newcastle	"	"	"	" furn	The Stothart Mercantile Co.		7 50
"	"	"	"	Bit.	" "		5 75
Richibucto	"	"	"	Ant., furn	R. O'Leary		8 00
"	"	"	"	" nut	"		8 25
St. John	Custom house		Passenger Elevator		Otis Fensom Elevator Co., Ltd	Aug. 29, 1913.	9,900 00

No. 1.—Contracts let by the Department of Public Works of Canada, from April 1, 1913, to March 31, 1914—*Continued.*

Works.				Names of Contractors.	Date of Contract.	Amount.
						$ cts.
Public Buildings—*Continued.*						
New Brunswick—Concluded.						
St. John	Post Office	Coal, per ton—Ant., furn		R. P. & F. W. Starr		6 75
"	"	"	" stove	"		7 00
"	"	"	" Bit.	"		4 50
"	Savings Bank	"	Ant., egg	J. T. Gibbon & Co		7 50
"	"	"	" nut	" "		7 50
"	"	"	Bit	R. P. & F. W. Starr		4 50
"	Custom House	"	Ant., furn	"		6 75
"	"	"	" nut	J. T. Gibbon & Co		8 50
"	"	"	Bit	R. P. & F. W. Starr		4 50
"	Immigration Building	"	"	"		4 50
"	"	"	Ant., furn	C. E. Colwell		7 00
"	"	"	" nut	"		8 25
"	First-class Detention Building	Construction of		J. E. Kane & W. T. Ring	Feb. 2, 1914	39,589 60
" (West)	Post Office	Coal, per ton—Ant., stove		C. E. Colwell		7 90
St Stephen	"	"	" egg	W. C. Purvis		7 40
"	"	"	" nut	"		7 40
Sussex	"	"	" egg	P. H. Brown		8 70
"	"	"	" nut	"		8 70
Tracadie (Lazaretto)	"	"	" egg	The Stothart Mercantile Company		9 25
" "	"	"	Bit	" " "		7 50
Woodstock	"	"	Ant., furn	W. F. Dibblee & Son		9 15
Quebec.						
Acton Vale	Post Office	Coal, per ton—Ant., egg		V. J. Mongeau		8 50
Arthabaska	"	"	" "	J. B. Ouellet		9 25
Aylmer	"	"	" "	Aylmer Coal and Supply Co		7 25
Berthierville	"	"	" stove	F. O. Lamarche		10 00
Buckingham	"	"	" egg	The Traders Company		7 70
Chicoutimi	"	"	" furn	Cote, Boivin & Co		8 75
Coaticook	"	"	" "	W. C. Webster & Son		7 40
"	"	"	" nut	" "		7 10
Coaticook	Public Building	Electric wiring and fittings		The Electrical Repair and Supply Co	Dec. 23, 1913	990 00
"	"	Fittings		A. H. Cummings & Son, Ltd	Jan. 8, 1914	2,650 00
Cookshire	Post Office	Coal, per ton—Ant., furn		E. J. Planche & Co		8 00

Drummondville	"	"	"	Jimmy Hamel	8 75
"	"	Electric wiring and fittings		J. H. Choquette Co	March 3, 1914. 635 80
Dundee	Custom-house	Coal, per ton—Ant., egg		A. S. Matthews	7 00
Farnham	Post Office	"	"	Berthiaume & Lanoue	7 10
"	Experimental Farm	Construction of 2 semi-detached cottages.		A. B. Comeau	Feb. 11, 1914. 7,500 00
Fraserville	Post Office	Coal, per ton—Ant., egg		E. A. Doucet	8 90
Granby	"	"	"	P. Phœnix	7 30
Gross Isle	Detention Building	Additional story in front portion of, and wash basins and piping in all rooms.		Jos. Gosselin	May 11, 1913. 11,143 00
"	Two (2) cottages	Construction of		By day labour	Sept. 20, 1913. 7,800 00
"	Infectious Diseases Hospital	Foundations for		J. B. Gallibois	Nov. 21, 1913. 20,753 00
Hochelaga	Post Office	Coal, per ton—Ant., egg		J. O. Labrecque & Co	7 75
Hull	"	"	"	Hull Coal Company	7 60
Iberville	"	"	" furn.	John Donaghy	6 40
Joliette	"	"	" egg	Sinaie Bourgeoin	8 00
Lachine	"	"	" stove	Martin & Co	7 00
"	"	"	" nut	"	7 25
"	"	Fittings		The J. T. Schell Co	March 23, 1914 1,921 00
"	"	Alterations, etc., to		Adolphe Gauthier	Aug. 11, 1913. 20,200 00
Lachute	"	Coal, per ton—Ant., egg		W. H. Ayers	8 25
"	"	"	" nut	"	8 50
Laprairie	"	"	" stove	Emery Brossard	8 00
"	"	"	" nut	"	8 00
L'Assomption	"	"	" egg	Charles Rho	7 70
Levis	"	"	" "	Pierre Robitaille	6 90
Longueuil	"	"	" "	C. F. Dennicourt	7 20
Louiseville	Public Building	Construction of		Jos. Bourque	June 23, 1913. 17,500 00
Magog	Post Office	Coal, per ton—Ant., furn.		T. B. Mullins	7 20
Marieville	"	"	" egg	W. E. Poulin	7 45
"	"	"	" nut	"	7 70
Matane	Public Building	Construction of		J. H. Morin & Son	July 21, 1913. 20,000 00
Megantic	Post Office	Coal, per ton—Ant., egg		A. H. Evans	8 75
Montmagny	"	"	"	E. Boulanger & Son	8 50
Montreal	Postal Station "H"	Construction of		C. E. Deakin	April 12, 1913. 248,000 00
"	Post Office	Alterations and additions to fittings.		The J. T. Schell Co	May 27, 1913. 3,486 00
"	Postal Station "C"	Interior fittings		J. B. Seguin and J. M. Guindon	May 14, 1913. 7,734 00
"	New Detention Hospital	Construction of two additional storys.		C. E. Deakin	June 9, 1913. 7,587 00
"	Examining Warehouse	Finishing by pneumatic caisson method the concrete piers.		P. Lyall & Sons Construction Co., Ltd	Aug. 4, 1913. 190,964 61
"	Postal Station "F"	Construction of		Jos. Bourque	Aug. 11, 1913. 57,500 00
"	Post Office	"Postal Customs" Parcels Service. Metallic fittings.		Office Specialty Manufacturing Co., Ltd	Oct. 25, 1913. 5,995 00
"	Postal Station "B"	Alterations and additions to fittings.		The J. T. Schell Co	Oct. 27, 1913. 5,387 00
"	Central Post Office	Fittings		P. E. Bourassa & Son	Dec. 16, 1913. 6,215 00
"	Custom-house	Coal, per ton—Ant., furn.		F. Robertson	7 50

No. 1.—Contracts let by the Department of Public Works of Canada, from April 1, 1913, to March 31, 1914—*Continued.*

Works.			Names of Contractors.	Date of Contract.	Amount.
					$ cts.
PUBLIC BUILDINGS—*Continued.*					
Quebec.—Concluded.					
Montreal	Examining Warehouse	Coal, per ton—Bit.	Geo. Hall Coal Co		4 15
"	Express Parcels Offices	" Ant., egg	P. McCrory Coal Co		7 75
"	Postal Station "B"	" " "	" "		7 75
"	" "C"	" " "	Evans Bros.		7 75
"	" "D"	" " "	"		7 75
"	Revenue Building	" " "	J. O. Labrecque & Company		7 75
"	Detention Hospital	" " "	" "		7 75
"	Immigration Building,	" " stove	Evans Bros.		7 75
"	" "	" " egg	"		7 75
Nicolet	Post Office	" " "	J. B. Lemay		8 00
Pierreville	"	" " stove	Shooner & Co		6 90
"	"	" " nut	"		7 20
Plessisville	"	" " furn.	La Fonderie de Plessisville		9 50
Quebec	Drill Hall	Alterations and addition to	Jinchereau & Lamonde	May 22, 1913	130,050 00
"	Customs and Inland Revenue	Fittings	The J. T. Schell Co.	June 9, 1913	7,587 00
"	Postal Station "B"	"	" "	July 29, 1913	1,527 00
"	Post Office Building	Heating and ventilating apparatus	W. J. McGuire & Co.	Feb. 10, 1914	27,500 00
"	Custom-house	Coal, per ton—Ant., furn.	Canadian Import Co		7 00
"	Marine Agency	" " "	" "		7 05
"	"	" " stove,	" "		7 20
"	Examining Warehouse	" " furn.	" "		7 10
"	Immigration Office	" " egg	" "		7 25
"	"	" " stove	" "		7 35
"	" Building	" " egg	" "		7 35
"	" Hospital	" " "	" "		7 75
"	" "	" " stove	" "		7 75
"	Post Office	" " furn.	" "		7 15
"	"	" " egg	" "		7 40
"	Weights and Measures	" " egg	" "		7 30
Quebec	Governor General's Quarters	Coal, per ton—Ant., furn.	Canadian Import Company		7 45
"	" " "	" " stove	" "		7 70
" (St. Roch)	Post Office	" " furn	" "		7 05
Richmond	"	" " egg	S. E. Desmarais & Co		6 90
Rigaud	"	" " "	Basile Decoste		7 75
Rimouski	"	" " "	Talbot Limited		9 00

Roberval	"	Fittings	The J. T. Schell Company	Dec. 24, 1913.	1,455	00
"	"	Coal, per ton—Ant., egg	Geo. P. Marcotte		8	70
"	"	" " nut	"		8	70
Rock Island	Public Building	Electric lighting service	The Sherbrooke Railway & Power Co	Oct. 7, 1913.	per kil. hr. 0	09
"	Post Office	Coal, per ton—Ant., egg	C. H. Kathan		7	75
"	"	" " "	"		8	00
Shawinigan Falls	Public Building	Electric lighting service	The St. Maurice Light & Power Co	July 15, 1913.	Sched : of prices.	
" "	Post Office	Fittings	The J. T. Schell Company	Sept. 3, 1913.	2,741	00
" "	"	Coal, per ton—Ant., egg	C. H. Flamand		8	25
Sorel	"	" " "	Leclaire & Son		7	90
St. Gabriel de Brandon.	Public Building	Construction of	R. Brunet & A. Leclaire	Dec. 9, 1913.	21,565	00
St. George East	Post Office	Fittings	Joseph Gosselin	Dec. 5, 1913	850	00
St. Henri (Montreal)	"	Coal, per ton—Ant., egg	J. Labrecque & Company		7	75
St. Hyacinthe	"	" " furn	Demers & Cooney		7	00
"	Inland Revenue	" " "	" "		7	00
St. Jerome	Post Office	" " "	S. Lebel		8	25
St. Johns	" old	" " egg	John Donaghy		5	90
"	" new	" " "	"		5	90
"	"	" " stove	"		5	90
St. Lambert	"	Fittings	The J. T. Schell Company	July 26, 1913.	1,665	00
"	Public Building	Electric light current for lighting	Town of St. Lambert	Dec. 1, 1913.	per kil. hr. 0	10 less 30% disc. meter rental per month 15c. (for one year)
St. Laurent (Co. of Jacques Cartier).	Post Office Building	Construction of	J. H. Grou & R. Grou	April 18, 1913.	24,950	00
St Louis du Mile End.	" "	Coal, per ton—Ant., egg	J. O. Labrecque & Co		7	75
Ste Therese	" "	" " furn	P. E. Desjardins		8	00
Terrebonne	" "	" " egg	M. Moody & Sons Co		7	50
Thetford Mines	" "	" " "	P. E. Beaudoin		9	50
Three Rivers	" "	" " "	Z. Marchand & Son		7	00
"	Public Building	Construction of	Verrette, McLeod, Ferron and Ferron	Feb. 9, 1914.	163,495	00
Valleyfield	Post Office	Coal, per ton—Ant., furn	Narcisse Langevin		7	27
Victoriaville	"	" " egg	J. C. Giroux		8	75
Ville Emard	"	" " "	F. Robertson		7	75
Westmount (Montreal).	"	Construction of	John Quinlan	Aug. 4, 1913.	70,000	00
		Ontario.				
Acton	Public Building	Construction of	J. A Proctor	May 26, 1913.	24,326	00
"	Post Office	Fittings	The Berlin Interior Hardwood Co. Ltd.	Mar. 20, 1914.	1,580	00
Alexandria	"	Coal, per ton—Ant., egg	Angus McDonald.		6	90
Almonte	"	" " "	Thos. R. White		7	15
"	"	" " stove	"		7	35
Amherstburg	"	" " furn	The McGee Coal Co		6	95
Arnprior	"	" " "	J. S. Moir		7	75
"	"	" " "	R. S. Drysdale		7	75

No. 1—Contracts let by the Department of Public Works of Canada, from April 1, 1913, to March 31, 1914.—*Continued.*

Works.			Name of Contractors.	Date of Contract.	Amount.
					$ cts
Public Buildings.					
Ontario—Continued.					
Athens	Post Office	Coal, per ton—Ant., egg	G. N. Purcell		8 40
"	"	" " furn	"		8 40
Aylmer	Post Office Building	Construction of	Nagle & Mills	April 3, 1913	33,791 00
Barrie	Post Office	Coal, per ton—Ant., egg	Lewis & Company		6 98
Belleville	"	" " stove	Schuster Company		6 73
"	Public Building	Electric lighting service	The Trenton Electric & Water Co. Ltd	Aug. 8, 1913	per kil. hr. 0 10 (5 years)
"	Post Office	Fittings	The Berlin Interior Hardwood Co. Ltd	Mar. 11, 1914	3,036 00
Berlin	"	Coal, per ton—Ant., egg	Geo. Braun		7 25
"	"	" " stove	Kloepfer & Company		7 50
Bowmanville	"	" " "	E. W. Loscombe		7 50
"	"	" " nut	"		7 50
Bracebridge	Public Building	Construction of	The Simcoe Construction Co. Ltd	July 11, 1913	34,425 00
Brampton	Post Office	Clock tower	Thos. A. McClure	Nov. 17, 1913	4,631 00
"	"	Coal, per ton—Ant., furn	Daniel Prathy		7 25
"	"	" " nut	"		7 50
Brantford	Public Building	Substitution of stone to brick for upper two stories.	P. H. Secord & Sons Ltd	Dec. 2, 1913	3,340 00
"	Post Office	Coal, per ton—Ant., egg	The Wilson Coal Co		6 17
"	"	" " nut	"		6 17
Bridgeburg	"	" " egg	Mrs. Isaac White		6 50
Brockville	"	" " "	W. B. Reynolds		7 25
"	"	" " stove	"		7 25
Carleton Place	Post Office	Coal, per ton—Ant., furn	Fred. Morris		7 25
"	"	Electric wiring and fittings	Garrioch & Goddard	March 25, 1914	1,150 00
Chatham	"	Coal, per ton—Ant., egg	A. R. Crow		6 60
Chesley	"	" " "	Gordon Lloyd		7 75
"	"	" " nut	"		7 75
"	"	Fittings	The Berlin Interior Hardwood Co., Limited	Oct. 29, 1913	1,173 00
Clinton	"	Coal, per ton—Ant., furn	Arthur Forbes		7 75
"	"	" " nut	"		8 00
Cobalt	"	Fittings	The Oshawa Interior Fittings Co	Feb. 11, 1914	295 00
Cobourg	"	Coal, per ton—Ant., egg	The Thompson Macdonald Co.		6 75
Collingwood	Public Building	Construction of	Herrington, Bryan & Healey	July 28, 1913	106,750 00
Cornwall	Post Office	Coal, per ton—Ant., egg	Jas. Broderick		6 40

"	"	"	"	nut	"			6	50
Deseronto	"	"	"	furn	The Rathbun Company			7	50
Dresden	"	"	"	"	Wells & Wells			7	50
Dundas	"	"	"	egg	James A. Sturrock			6	50
"	"	"	"	nut	"			6	50
Eganville	Public Building	Construction of			L. B. Lachance	June 23, 1913	22,750	00	
Elmira	"	"			E. A. Bleakney	Aug. 11, 1913	35,000	00	
Elora	Post Office	Coal, Per ton—Ant.		furn	E. Freneh			7	15
Essex	"	"	"	egg	J. A. Coulter			7	50
Fergus	"	"	"	furn	A. E. Nicholas			6	90
"	"	"	"	nut	"			7	15
Fort William	Examining Warehouse	Construction of			M. H. Braden	Dec. 31, 1913	162,900	00	
"	Post Office	Coal, per ton—Ant.		furn	John Murphy			7	50
Galt	"	"	"	egg	John Brownlee			6	75
Gananoque	"	Fittings			E. A. Bleakney	Dec. 10, 1913	2,500	00	
"	Custom-house	Coal, per ton—Ant.		egg	Jas. Taylor & Son			7	00
"	"	"	"	Bit.	"			5	00
"	Post Office	"	"	Ant., stove	"			7	00
"	"	"	"	nut	"			7	00
Gleneoe	"	"	"	furn	McPherson & Clark			6	75
"	"	"	"	nut	"			7	00
Goderich	"	"	"	egg	H. J. A. McEwan			7	25
"	"	"	"	nut	"			7	50
Guelph	"	"	"	egg	Gowdy Bros			6	90
Hamilton	"	"	"	"	Thos. Myles & Sons			5	95
"	"	"	"	Bit	"			4	00
"	Examining Warehouse	"	"	Ant., egg	"			5	95
"	Weights and Measures	"	"	"	"			5	95
Hanover	Public Building	Construction of			Anderson, Bath & Patchell	Feb. 2, 1914	28,500	00	
Harriston	Post Office	Coal, per ton—Ant.		furn	John Howes			7	50
"	"	"	"	nut	"			7	50
Hawkesbury	"	"	"	egg	F. X. Berthiaume			8	00
Ingersoll	"	"	"	"	Scott & Daniels			7	25
"	"	"	"	Bit	"			7	25
Kemptville	Post Office Building	Electric light wiring and fittings			The Dominion Concrete Co., Limited	Sept. 22, 1913	800	00	
"	"	Coal, per ton—Ant.		egg	S. C. Patterson			7	75
"	"	"	"	nut	"			7	75
Kenora	"	"	"	furn	Murphy Bros			9	75
Kincardine	"	"	"	"	Walter Burnside			6	95
Kingston	"	Interior fittings			The Berlin Interior Hardwood Co., Limited	June 2, 1913	3,675	00	
"	Custom-house	Coal, per ton—Ant.		egg	S. Anglin & Company			7	40
"	"	"	"	nut	"			7	40
"	Post Office	"	"	egg	"			7	40
"	"	"	"	nut	"			7	40
"	Inland Revenue	"	"	egg	"			7	40
"	"	"	"	nut	"			7	40
Lakefield	Public Building	Construction of			James Bougue	Dec. 17, 1913	21,997	00	
Lindsay	Post Office	Coal, per ton—Ant.		egg	Flavelles Co			8	00
"	"	"	"	"	Baker Lumber Co			8	00
"	"	"	"	nut	Flavelles Co			8	25

No. 1.—CONTRACTS let by the Department of Public Works of Canada from April 1, 1913, to March 31, 1914.—*Continued.*

Works.			Name of Contractors.	Date of Contract.	Amount.
					$ cts.
PUBLIC BUILDINGS.					
Ontario—Continued.					
Lindsay	Post Office	Coal, per ton—Ant., nut	Baker Lumber Co.		8 25
Listowell	"	" " egg	Oliver & Ellis		7 00
"	"	" " nut	"		7 25
London	Custom-house	" " egg	W. H. Winnett		6 75
Markham	Post Office	" " stove	R. Welsh		7 15
Milverton	Public Building	Construction of	W. F. Martin	March 24, 1914	24,642 00
Mitchell	Post Office	Coal, per ton—Ant., egg	R. J. Cook		6 75
"	"	" " nut	"		6 75
Mount Forest	"	Coal, per ton—Ant., furnace	T. F. Tanguay		7 25
"	"	" " stove	"		7 25
Napanee	"	" " "	J. R. Dafoe		7 50
"	"	" " nut	"		7 75
"	"	Building Electric light wiring and fittings	The H. W. Newman Electric Company	Jan. 10, 1914	837 50
Niagara Falls	"	Coal, per ton—Ant., egg	J. E. Hutchings		6 02
"	"	" " nut	"		6 30
North Bay	"	" " egg	North Bay Fuel Company		7 90
Ontario	Post Offices Generally	Supply of 100 standard P.O. Lods, No. 1627.	Office Specialty Manufacturing Co., Ltd.	Nov. 26, 1913.	200 00
"	" "	Supply of letter sorting cases	P. E. Bourassa & Son	" 27, 1913.	5,839 00
"	" "	Supply of standard Post Office fittings.	The Berlin Interior Hardwood Co., Ltd	Dec. 6, 1913.	690 00
Orangeville	Post Office	Coal, per ton—Ant., egg	C. C. G. Hannah		7 50
"	"	" " nut	"		7 50
Orillia	"	" " egg	The S. E. Carss Lumber Co.		7 35
"	"	" " stove	" "		7 60
"	Public Building	Alterations, &c., to	E. Webb & Sons	Dec. 30, 1913.	31,485 00
Oshawa	Post Office	Coal, per ton—Ant., stove	Wm. Merritt		7 15
"	"	" " nut	"		7 35
Ottawa	Experimental Farm	" " furnace	The C. C. Ray Co.		7 30
"	"	" " egg	"		7 60
"	"	" " nut	"		7 80
"	"	" " stove	"		7 60
"	Customs Building	Supply of about 4,500 barrels of cement.	Wright & Co. (Inc.)	May 9, 1913.	Per barrel 1 78

"	.....	"	...Supply of about 1,800 cu. yds. of sand.	H. W. Brooks	" 13, 1913.	Per cu. yd. 1 05
"	.....	Public Buildings....	Supply and delivery of ice.	Twin City Ice Co., Ltd..	" 23, 1913.	Per 100 lbs. 0 20
"	.....	East Block.....	Chrome steel ceiling and door for vault.	Goldie & McCullough Co.....	June 5, 1913	7,354 00
"	.....	Public Buildings.....	Coal.....	John Heney & Son, Ltd.....	July 4, 1913.	Sched : of prices.
"	.....	West Block.....	Supply and installation of passenger elevator and enclosure.	A. G. Marshall...	" 11, 1913.	8,250 00
"	....	Erection of Monument to His late Majesty Edward VII. . .		W. S. Allward.....	" 23, 1913	35,000 00
"	.....	Rideau Hall.....	Alterations and addition to.....	P. Lyall & Sons Construction Co., Ltd.....	Aug. 1, 1913.	125,000 00
"	.....	Customs Building (Sussex St.).	Completion of foundations..... .	The Foundation Co., Ltd..	" 20, 1913	12% of work and 3% per month for plant.
"	.....	Interior Department (Langevin Block).	Metallic fittings.....	Steel Equipment Co., Ltd....	" 20, 1913.	6,185 00
"	.....	Customs Building.....	Construction of.....	Crockett & Tharle.....	Sept. 22, 1913.	993,000 00
"	.....	Rideau Hall	Stone and iron fences to grounds at	A. G. Marshall.....	" 29, 1913.	6,400 00
"	....	Dominion Public Buildings....	Supply of 150 vertical filing cabinets.	Steel Equipment Co., Ltd.	" 29, 1913.	4,425 00
"	....	Victoria Memorial Museum. (Dept. of Mines).	Fittings	" "	Oct. 1, 1913.	2,639 00
"	....	Railway Commission (Central Station).	Installation of 2 filing cabinets...	" "	" 4, 1913.	11,750 00
"	.....	Parliament Grounds.....	Installation of underground services for light and power in.	A. G. Marshall..	" 6, 1913.	1,995 00
"	....	Department of Agriculture (Seeds Branch).	Metallic cases....	Office Specialty Manufacturing Co., Ltd.	Nov. 19, 1913.	1,450 00
"	.....	Post Office Department (Money Order Branch).	Metallic fittings	" "	" 19, 1913.	4,750 00
"	....	Lands Patent Branch (Department of the Interior).	Two metallic book-shelf cases...	" "	" 27, 1913.	950 00
"	.....	Geodetic Survey Building.....	Addition to..... ..	W. H. McGillivray.....	Dec. 1, 1913.	4,372 00
"	.....	" (Office Building).	Construction of	"	" 27, 1913.	61,948 00
"	. .....	Department of the Interior (Irrigation Branch).	Metallic filing cases.	Steel Equipment Co., Ltd.	Jan. 5, 1914.	845 00
"	.....	Department of Finance— (Working Vaults).	Metallic fittings.....	Office Specialty Manufacturing Co., Ltd.....	" 5, 1914.	2,975 00
"	.....	Geological Survey.	Storage trays.....	Steel Equipment Co., Ltd.....	" 9, 1914.	640 00
"	.....	"	Metallic cases..	" "	" 9, 1914.	5,115 00
"	.....	Department of Finance....	Metallic fittings.	Office Specialty Manufacturing Co., Ltd.	" 12, 1914.	5,665 00
"	. . ..	Post Office Department (Accountant's Branch).	"	" "	" 16, 1914.	2,696 00
"	.....	Supply of 10,000 Tungsten Lamps		Canadian Tungsten Lamp Co., Ltd.	" 24, 1914.	2,354 00
"	.....	Department of Militia and Defence.	Metallic fittings.....	Office Specialty Manufacturing Co., Ltd.	" 26, 1914.	1,850 00
"	....	Post Office Department.	Steel filing cabinets.....	Steel Equipment Co., Ltd....	" 26, 1914.	595 00
"	.....	Departmental Buildings, etc..	Fire alarm system.	Ontario May Oatway Fire Alarm, Ltd.....	" 27, 1914.	41,627 00
"	.....	Department of Finance (Comptroller of Currency).	Fittings.....	Kyle's Cabinet Works, Ltd	Feb. 5. 1914	630 00
"	.....	Royal Mint	Addition to Refinery.....	Jos. Bourque.....	" 21, 1914.	25,500 00

No. 1—CONTRACTS let by the Department of Public Works of Canada, from April 1, 1913, to March 31, 1914.—*Continued.*

Works.			Names of Contractors.	Date of Contract.	Amount.
		PUBLIC BUILDINGS.			$ cts.
		Ontario—Continued.			
Ottawa	Department of the Interior (Survey Records).	Filing cases	Office Specialty Manufacturing Co., Ltd.	" 26, 1914.	5,990 00
"	Department of Railways and Canals.	Metallic fittings	Steel Equipment Co., Ltd.	" 27, 1914.	1,595 00
"	Roaster Building.	Extension to fuel shed	Taylor & Lackey	Mar. 9, 1914.	6,979 00
"	Department of Militia and Defence.	6 steel cabinets for	Office Specialty Manufacturing Co., Ltd.	" 16, 1914.	690 00
"	Post Office Department (Postal Note Room).	Alterations to fittings	" "	" 19, 1914.	1,450 00
Owen Sound	Post Office	Coal, per ton—Ant., egg	The Davis Smith Malone Co		6 90
Parkhill	"	" " stove	W. H. Mark & Co		7 00
"	"	" " "	William Leary		7 00
"	"	" " nut	W. H. Mark & Co		7 00
"	"	" " "	William Leary		7 00
Paris	"	" " egg	Geo. E. Taylor		7 00
"	"	" " stove	"		7 00
"	"	Alterations and additions to fittings.	James Sinclair	July 28, 1913.	106,750 00
Pembroke	Drill Hall	Construction of	H. J. Beatty, R. J. Reinke & L. B. Lachance	Dec. 17, 1913.	43,220 14
"	Post Office	Coal, per ton—Ant., egg	Dunlop & Co		8 10
"	"	" " nut	"		8 35
Peterborough	"	" " egg	Peterboro Fuel and Coal Co		7 50
"	"	" " "	Robert Hicks		7 50
"	Custom-house.	" " stove	J. E. A. Fitzgerald		7 75
Picton	Post Office	Coal, per ton—Ant, egg	Hyatt & Rolston		7 25
"	"	" " stove,	"		7 25
"	"	" " nut	"		7 50
Port Arthur	"	" " egg	Louis Walsh Coal Co		7 75
"	"	" " nut	"		8 00
"	Armoury	Construction of	Tharle, Brown & Stewart	April 21, 1912.	150,057 60
"	Public Building	Alterations to plumbing and fixtures	W. B. & H. R. Sime	Sept. 19, 1913.	2,221 00
"	Post Office	Fittings	The J. T. Schell Company	Oct. 15, 1913.	3,419 00
"	Examining Warehouse	Construction of	The Marble Hutton Powers Co	Feb. 16, 1914.	208,000 00
Port Colborne	Post Office	Electric wiring and fittings	W. R. Savigny	Jan. 2, 1914.	524 65

Port Hope	"	Coal, per ton—Ant., egg	G. N. Patterson			6 75
"	"	" " nut	"			7 00
Port Perry	"	" " egg	C. L. Vickery			7 50
"	"	" " nut	"			7 75
Prescott	"	" " egg	I. W. Plumb & Son			6 50
"	"	" " nut	"			6 50
Preston	Public Building	Construction of	Geo. A. Proctor		Aug. 4, 1913	44,861 00
Renfrew	Post Office	Coal, per ton—Ant., egg	Jos. Rouselle			7 75
"	"	" " nut	"			8 00
Sandwich	"	" " egg	A. G. Hutchinson			7 05
Sarnia	"	" " "	W. A. Burns			6 80
"	"	" " nut	"			6 80
Sault Ste Marie	Public Building	One pass. elevator and penthouse etc	W. T. Jamison & D. Jamison		July 31, 1913	11,100 00
"	Post Office	Coal, per ton—Ant., egg	Sault Ste Marie Coal & Wood Co			8 25
Shelburne	Public Building	Construction of	A. Green & W. N. Campbell		Aug. 16, 1913	29,707 00
Smith's Falls	Post Office	Coal, per ton—Ant., egg	Thomas Graham			7 25
"	"	" " nut	"			7 75
Steelton	Public Building	Construction of	Thornton & Woolrich		Nov. 11, 1913	28,870 00
Stratford	Post Office	Coal, per ton—Ant., egg	Andrew Johnston & Son			6 80
Strathroy	"	" " furn	R. M. Pincombe			7 00
Sudbury	Public Building	Construction of	Doran & Devlin		Sept. 8, 1913	98,200 00
St. Marys	Post Office	Coal, per ton—Ant., egg	Dunsmith & Thompson			6 75
"	"	" " nut	"			6 90
St. Thomas	"	" " egg	Ellison & Lewis			6 63
"	"	Electric wiring and fittings	Hall Dollery Electric Co		Aug. 29, 1913	1,058 00
Tilbury	"	Coal, per ton—Ant., egg	W. C. Crawford			7 75
"	"	" " nut	"			7 75
Toronto	Postal Station 'G'	Construction of	Witchall & Son		Aug. 5, 1913	126,214 00
"	Custom House	Coal, per ton—Ant., egg	P. Burns & Co			7 20
"	"	" " nut	"			7 20
"	"	" Bit	"			5 50
"	Examining Warehouse	" Ant., egg	"			7 20
"	" "	" Bit	"			5 50
"	Post Office	" Ant., egg	"			7 20
"	"	" Bit	"			5 50
"	"	" Ant., nut	"			7 20
"	Postal Station 'C'	" " egg	"			7 20
"	" 'C'	" " nut	"			7 20
"	" 'F'	" " egg	"			7 20
"	" 'F'	" " nut	"			7 20
"	" 'D'	" " egg	"			7 20
"	" 'K'	" " "	"			7 20
"	" 'K'	" " nut	"			7 20
"	Revenue Office	" " egg	"			7 20
"	"	" " nut	"			7 20
"	"	" Bit	"			5 50
"	Post Office Garage	" Ant., egg	"			7 20
"	"	" Bit	"			5 50
Trenton	Post Office	" Ant., egg	B. W. Power & Sons			7 25

No. 1.—Contracts let by the Department of Public Works of Canada from April 1, 1913, to March 31, 1914.—*Continued.*

Works.			Names of Contractors.	Date of Contract.	Amount
					$ cts.
Public Buildings.					
Ontario—Con.					
Trenton	Post Office	Coal, per ton—Ant., nut	B. W. Power & Son		7 25
"	"	Electric wiring and fittings	The Geo. E. B. Grinyer Co. Ltd	Feb. 25, 1914	926 50
Uxbridge	"	Coal, per ton—Ant., egg	The Jones Hardware Co		7 30
"	"	" " nut	" "		7 55
Walkerton	"	" " egg	Alex. George		7 25
Welland	"	" " "	S. L. Lambert		6 40
Whitby	"	" " furn	J. H. Downey & Co		6 52
"	"	" " nut	"		6 74
Windsor	"	Electric wiring and fittings	Dominion Electric Company	Feb. 16, 1914	2,040 00
Manitoba.					
Brandon	Experimental Farm	Coal, per ton—Ant., stove	T. E. Elviss		11 25
"	"	" Bit., Can	"		4 50
"	Post Office	" Ant., stove	"		11 25
"	"	" Bit	"		4 50
"	Immigration Building	" Bit., Souris	Barclay & O'Hara		4 25
"	"	" " "	T. E. Elviss		4 50
Carman	Public Building	Construction of	Snyder Bros.	Mar. 25, 1914	29,200 00
Dauphin	Post Office	Coal, per ton—Ant., furn	Thos. Jordan		11 50
Emerson	"	" " "	C. Whitman		10 45
"	"	" Bit	"		8 00
"	Immigration Building	" Ant	"		10 45
"	"	" Bit	"		8 60
Neepawa	"	" Ant., egg	Benson Norman Co		11 55
"	"	" " stove	"		11 55
Minnedosa	Post Office	Fittings	The Berlin Interior Hardwood Co. Ltd	Dec. 10, 1913	2,375 00
Portage la Prairie	Public Building	Coal, per ton—Ant., egg	Richardson Bros.		11 15
"	"	" Bit., Can	"		10 00
Selkirk	Post Office	" Ant., egg	J. G. Hargrave & Co.		10 90
Souris	"	" Bit	J. H. Patrick		8 50
Stonewall	Public Building	Construction of	Cooper Bros. & Watts	Jan. 22, 1914	19,195 00
St. Boniface	Post Office	Coal, per ton—Ant., furn	J. G. Hargrave & Co.		11 00
Virden	Public Building	Construction of	W. T. Mansard	June 2, 1913	33,000 00
Winnipeg	Drill Hall	Construction of	Carter-Halls-Aldinger Co. Ltd	Oct. 2, 1913	519,929 00

"	Immigration Hall No. 1	Coal, per ton—Ant., egg	Western Coal Co.			11 60
"	" " " 2	" " "	"			11 60
"	" " " 3	" " "	J. G. Hargrave & Co.			11 60
"	Old Post Office	" " "	"			11 60
"	Post Office	" Ant., pea	"			11 00
"	" "	" Bit.	"			7 50
"	New Examining Ware House	" "	Western Coal Co.			7 50
"	" " " "	" Ant., pea	"			7 00
"	Postal Station 'B'	" " egg	"			11 00
"	Immigration Building	Installation of fire alarm system in the five buildings	Canadian May Oatway Fire Alarms, Ltd.	Jan. 3, 1914		8,989 00
	Saskatchewan.					
Battleford	Post Office	Coal, per ton—Bit	Spurs & Taylor			7 50
Estevan	"	" "	P. C. Duncan Co			3 00
Gravelbourg	Immigration Office	" "	J. N. Beaubien			15 00
"	P. Office and Telegraph Office	" "	"			15 00
Humboldt	Post Office	" "	The Pembina Coal Co			7 25
Indian Head	Experimental Farm	" Ant.	J. G. Hargrave & Co			12 65
"	" "	" Bit., Can	James Conn			9 50
"	Forest Nursery	" Ant., furn	"			12 00
"	" "	" " stove	"			12 00
"	" "	" Bit.	"			9 50
Lloydminster	Public Building	Fittings	The J. T. Schell Co.	Oct 13, 1913		3,310 00
"	Immigration Hall	Coal, per ton—Bit	The Pembina Coal Co			6 75
"	Post Office	" "	"			6 75
Maple Creek	"	" Ant., furn	L. C. Parsons			14 00
"	"	" Bit., Can.	"			7 75
"	Public Building	Electric light wiring and fittings	Acme Electric Co.	Oct. 10, 1913		1,050 00
Melfort	Post Office	Fittings	The Western Mfg. Co., Ltd.	July 19, 1913		3,058 00
"	"	Coal, per ton—Bit	The Pembina Coal Co			7 50
Moose Jaw	"	Coal, per ton—Ant, egg	City Ice & Coal Co.			12 50
"	"	" Bit	"			7 50
"	Immigration Building	" "	"			7 50
"	" "	" Ant.	J. G. Hargrave & Co			12 10
"	Post Office	Passenger elevator in	Otis Fensom Elevator Co., Ltd.	Mar. 21, 1914		5,200 00
North Battleford	Public Building	Construction of	Smith Bros & Wilson Ltd.	May 30, 1913		49,200 00
"	Gov't Telegraph Office and Residence	Construction of	A. Gigault & J. M. Danis	Aug. 26, 1913		6,250 00
Prince Albert	Public Building	Interior fittings	W. Wortley	Oct. 17, 1913		1,235 60
Regina	Post Office	Alterations, etc., to fittings	The Constructors Ltd	June 14, 1913		1,900 00
"	"	Coal, per ton—Ant., egg	J. G. Hargrave & Co			12 00
"	"	" Bit.	Whitmore Bros			9 00
"	Dominion Lands	" Ant., egg	J. G. Hargrave & Co			12 00
"	" "	" Bit	Whitmore Bros			9 00
"	Immigration Building	" "	"			9 00
Saskatoon	Post Office	" Ant., egg	Simmons Bros			12 50
"	Immigration Building	" " stove	"			12 50
Tisdale	" "	" Bit	B. C. Seale			14 78

No. 1.—Contracts let by the Department of Public Works of Canada, from April 1, 1913, to March 31, 1914—*Continued.*

Works.			Names of Contractors.	Date of Contract.	Amount.
					$ cts.
Public Buildings.					
Saskatchewan—Con.					
Yorkton	Post Office	Coal, per ton—Ant., egg	J. G. Hargrave & Co		12 65
"	"	" " stove	"		12 65
Weyburn	"	Fittings	The Western Manufacturing Co. Ltd	April 28, 1913	2,560 00
"	"	Coal, per ton—Bit	Hunt & Porteous		8 20
Wilkie	Immigration Building	" " Can	Simpson Bros		10 00
Alberta.					
Athabaska	Immigration Office	Coal, per ton—Bit	Pembina Coal Co		5 25
Biggar	"	" "	"		7 15
Calgary	Immigration Shed	" "	C. S. Lott		7 50
"	"	" Ant	"		9 25
"	Post Office	" " egg	"		9 25
"	Examining Warehouse	One Passenger and three freight elevators	The Turnbull Elevator Manufacturing Co	Mar. 16, 1914	15,950 00
"	Post Office	Coal, per ton—Bit	C. S. Lott		7 50
Castor	"	" "	Harding & Morgan		3 00
Edmonton	Immigration Building	" "	Western Coal Co		4 00
"	Post Office	" "	"		4 00
"	"	" Ant	J. G. Hargrave & Co		13 75
Edson	Immigration Office	" Bit	The Pembina Coal Co		5 50
Entwistle	"	" "	"		3 75
Kerobert	"	" "	Beaver Lumber Co		9 25
Lethbridge	Post Office	" "	New Barns Coal Co		4 30
"	"	Fittings	The J. T. Schell Co	Feb. 20, 1914	6,309 00
"	"	One (1) passenger elevator	Otis Fensom Elevator Co. Ltd	Mar. 25, 1914	5,500 00
MacLeod	Custom-house	Coal, per ton—Ant., stove	Geo. Skelding		9 05
"	"	" Bit	"		6 00
Red Deer	Public Building	" "	Hewson & Sons		6 00
Strathcona	Immigration Building	" "	A. J. Staunard		4 25
"	Post Office	" "	"		4 25
Vermilion	"	" "	The Pembina Coal Co		6 00
Viking	"	" "	Steeve Jones		4 20
Wainwright	Immigration Office	" "	W. B. Crawford & Co		5 00
Wadena	"	" "	Wadena Lumber Co		8 25
Wetaskawin	Public Building	" "	Revelstoke S. M. Co		4 65

British Columbia.

Digby Island	Doctor's residence	Construction of	E. Kaufman	Sept. 20, 1913.	8,658 00
Duncan Station	Public Building	"	Rourke, McDonald & Monterieff.	Aug. 12, 1913.	38,463 00
Gonzales Heights	Observatory Building	"	J. C. Hurrell	" 15, 1913.	11,900 00
Greenwood	Public Building	"	John Burns & Son	" 29, 1913.	41,900 00
New Westminster	"	Alterations and additions to.	W. J. Sloan & H. W. Harrison	Sept. 13, 1913	48,000 00
Union Bay	"	Construction of	John Hammond	Aug. 13, 1913	5,465 00
Vancouver	Examining Warehouse	Interior fittings.	The J. T. Schell Co	Jan. 9, 1914.	6,508 00
	Immigration Dentention Hospital	Construction of	Snyder Bros & Brethour	Feb. 10, 1914.	277,449 00
"	Postal Station 'B'	Fittings	Dixon & Murray	" 17, 1914.	1,682 00
Victoria	Drill Hall	Construction of	Parfitt Bros	Jan. 21, 1914.	236,815 00
"	Public Building	Additions and alterations to.	The McAlpine Robertson Construction Co.	Mar. 29, 1914.	147,500 00

HARBOURS AND RIVERS.

Nova Scotia.

Amherst	Extension to pile wharf.		Maple Lumber Co., Ltd	Nov. 24, 1913.	16,440 00
" Harbour	Dredging	Class "B" p.c. yd	E. R. Reid	May 19, 1913.	0 50
Annapolis Royal	Five (5) ice piers	Construction of	Archibald & Reid	Oct. 11, 1913	34,700 00
Battery Point	Breakwater (south).	Extension to	J. F. Morrison, Jr.	" 24, 1913.	5,250 00
Blandford	Breakwater	Construction of	C. E. Strum & Son	March 3, 1914.	15,721 00
Caldwell's Cove	"	"	Whidden & Landry	Feb. 23, 1914.	6,900 00
Cheticamp	Dredging	Class "B" p.c. yd	Northern Dredging and Construction Co., Ltd.	Sept. 18, 1913.	0 30
D'Escousse	"	"	V. T. Bartram	May 14, 1913.	0 26½
Digby	"	"	Maritime Dredging and Cons. Co., Ltd	Aug. 9, 1913	0 59 & 0 25
"	"	"	" " "	" 21, 1913.	0 24½
East River	Lock, dam, sluices, approach piers and channel.	Construction of ; excavation of.	McDougal Bros	April 9, 1913.	Sched. of prices.
Glace Bay	Dredging	Class "A" p.c. yd	Costal Dredging and Cons. Co., Ltd.	Jan. 1, 1914.	7 50
		" "B" "	" " "	" 1, 1914.	0 29
Hantsport	Wharf	Extension to	The Standard Construction Co., Ltd	Oct. 16, 1913.	18,685 00
Kelly's Cove	Breakwater	"	Girroir & McDonald	July 16, 1913.	8,990 00
La Planche River	Dredging	Class "B" p.c. yd	E. R. Reid	May 19, 1913.	0 65
Little Lorraine	"	Class "A" p.c. yd	Atlantic Dredging Co., Ltd.	Sept. 22, 1913.	6 00
		" "B" "	" "	" 22, 1913.	0 30
Mill Cove	"	"	Halifax Dredging Co., Ltd.	Aug. 8, 1913.	0 29
Parker's Cove	Breakwater	Extension to.	R. H. McDonald.	Dec. 2, 1913.	6,480 00
Petit de Grat	Dredging	Class "B" p.c. yd	Costal Dredging and Cons. Co., Ltd.	Sept. 22, 1913.	0 54
Port Mulgrave	"	"	" " "	" 22, 1913.	0 29
Walton	Wharf.	Extension to	Albert Parsons	" 6, 1913.	14,400 00
Whycocomagh	Dredging	Class "B" p.c. yd	Atlantic Dredging Co., Ltd.	" 22, 1913	0 19

Prince Edward Island.

Arnold's Cove	Dredging	Class "B" p.c. yd	Nova Scotia Dredging Co., Ltd	July 30, 1913.	0 29
Cardigan River, (South.)	Wharf.	Extension and reconstruction	Annapolis Lumber Co., Ltd.	Oct. 28, 1913.	9,637 00

No. 1.—Contracts let by the Department of Public Works of Canada from April 1, 1913, to March 31, 1914.—*Continued.*

Works.			Names of Contractors.	Date of Contract.	Amount.
					$ cts.
Harbours and Rivers—Con.					
Prince Edward Island—Con.					
Charlottetown	Dredging	Class "B" p.c. yd	V. T. Bartram	March 23, 1914	0 28
Little Sands	Breakwater	Construction of	Phillips, Mutch & McLean	Feb. 12, 1914	Sched. of prices.
McAulay's Shore (Pinette Bay.)	Wharf	"	Annandale Lumber Co., Ltd	Oct. 28, 1913	7,438 00
North River Bridge	"	"	Joseph Hughes	" 28, 1913	3,490 00
Ogilvies	Breakwater	Extension to	E. R. Reid	July 28, 1913	6,300 00
Rocky Point	Wharf	Construction of	Harvey D. McEwen	March 31, 1914	Sched. of prices.
Rustico	Dredging	Class "B" p.c. yd	V. T. Bartram	Feb. 2, 1914	0 75
South River	"	"	"	June 16, 1913	0 24
Vernon River	"	" "A" "	The Maritime Dredging and Cons. Co., Ltd.	June 25, 1913	6 90
		" "B" "			0 27½
Wood Islands	Breakwater (southern)	Extension to	Townsend, Fraser & McQuade	Oct. 14, 1913	6,975 00
New Brunswick.					
Bathurst	Dredging	Class "B" p.c. yd	The Northern Dredging and Cons. Co., Ltd	July 7, 1913	0 25
Chocolate Cove	" and wharf	Extension	The Maritime Dredging and Cons. Co., Ltd	Dec. 15, 1913	Sched. of prices.
Dalhousie	"	Class "B" p.c. yd	The Northern Dredging and Cons. Co., Ltd	June 16, 1913	0 29½
"	"	" "A" "	" " " "	March 12, 1914	5 00
		" "B" "			0 30
Dorchester	Old railway wharf	Reconstruction and enlargem't of	The Island Dredging and Cons. Co., Ltd	Oct. 29, 1913	15,400 00
Evandale	High water wharf	Construction of	J. O. Vanwarth	June 9, 1913	8,000 00
Fredericton	Dredging	Class "B" p.c. yd	The New Brunswick Cons. Co., Ltd	" 10, 1913	0 23
Heustis Landing	Wharf	Construction of	Melvin Jones	March 6, 1914	6,275 00
Island River	Dredging	Class "A" p.c. yd	The W. J. Poupore Co., Ltd	Sept 20, 1913	6 00
		" "B" "			0 40
Little Black River		"	F. A. Fowlie	July 21, 1913	0 35
Little Dipper Harb'r	Breakwater	Construction of	The Maritime Dredging and Cons. Co., Ltd	Dec. 15, 1913	Sched. of prices.
Miramichi River (Northwest.)	Dredging	Class "B" p.c. yd	Peter England	Aug. 18, 1913	0 37
Miramichi River (Southwest.)	"	"	"	Oct. 3, 1913	0 60
Oak Point	"	"	The Maritime Dredging and Cons. Co., Ltd	Dec. 26, 1913	0 19½
Quaco	Wharf	Construction of	Robert Carson	May 19, 1913	15,985 00
Richibucto	Dredging	Class "B" p.c. yd	The W. J. Poupore Co., Ltd	June 10, 1913	0 30

River Mills (Boar's Head.)	"	"	The New Brunswick Construction Co., Ltd.	July 14, 1913.		0 26
Seal Cove	Breakwater (east side of harb'r)	Construction of	C. A. Huntley	Feb. 25, 1914.	Sched. of prices.	
Shediac Island	Wharf	"	Warren Taylor	" 19, 1914.		6,432 00
Shippegan Gully	Dredging	Class "B" p.c. yd	The W. J. Poupore Co., Ltd	June 10, 1913.		0 40
St. Andrews	"	"	The Maritime Dredging and Cons. Co., Ltd.	July 28, 1913.		0 40
St. George	"	"	J. S. Gregory	" 7, 1913.		0 50
St. John Harbour (Pt. Foul Ground.)	"	" "A" "	The Maritime Dredging and Cons. Co., Ltd.	May 30, 1913.		6 90
		" "B" "				0 49½
St. John	Pier	Construction of	M. Connolly	July 24, 1913.		575,284 00
St. John West (Navy Island Bar, Nelson and Wellington Slips.)	Dredging	Class "B" p.c. yd	The Maritime Dredging and Cons. Co., Ltd.	Sept. 3, 1913.		0 34½
St. John West	Grain conveyors	Construction of	John S. Metcalfe Co., Ltd.	Oct. 23, 1913.	Sched. of prices.	
St. Stephen	Dredging	Class "B" p.c. yd	The Maritime Dredging and Cons. Co., Ltd.	July 28, 1913.		0 70
Upper Salmon River	Breakwater	Extension to	The Island Dredging and Cons. Co., Ltd.	Nov. 5, 1913.		9,989 00
Welsh's Cove (Mace's Bay).	Breakwater.	Construction of	The Maritime Dredging and Construction Co., Ltd.	Dec. 15, 1913.	Sched. of prices.	
White's Bluff	Low water wharf	" "	A. L. Fox & A. H. Hamilton	Aug. 25, 1913.		11,985 00

Quebec.

Batiscan	Wharf	Improvements to	J. A. Gruninger & J. A. Dalton	Aug. 31, 1913.	Sched. of Prices.	
Cap de la Madeleine.	"	Extension to and substitution of B.C. pr for white pine.	Chas. Page	June 2, 1913.		6,294 00
Ile aux Coudres	"	Extension to	Edward, Joseph & Ernest Tremblay	July 3, 1913.	Sched. of prices	
Laprairie	Protection dyke	Construction of	A. Duranceau & N. Poupart	Jan. 21, 1914.	" "	
Lauzon	Dry dock	" "	M. P. Davis & J. T. Davis	Oct. 7, 1913	" "	
Malbaie (Gaspe Co.)	Pier	" "	John Burns	" 21, 1913.		42,700 00
Montmagny	Wharf	Extension to	J. R. Boulanger	Sept. 25, 1913		5,000 00
Nicolet	"	Construction of	Misael Bernatchez	March 23, 1914	Sched. of prices	
Rimouski	Line of cribwork and tidal basin	" "	Paul Raymond & J. A. Talbot	" 21, 1914	" "	
River du Loup (en haut).	Dredging	Class "A" per c. yd.	The W. J. Poupore Co., Ltd	July 9, 1913.		5 50
		" "B" per c. yd.				0 14
River Saguenay	"	" "B" per c. yd	The Continental Dredging Co., Ltd	June 2, 1913.		0 32½
"	"	" "B" per c. yd	" " "	Aug. 21, 1913		0 32½
River St. Charles	Sand bar	Removal of, per c. yd	Etienne Dussault Co., Ltd	Nov. 1, 1913.		0 11
River St. Francis	Dredging	Class "B" per c. yd	Bastien, Laurin & Leitch	May 19, 1913.		0 16
"	"	" "B" per c. yd	" "	Oct. 8, 1913.		0 16
River St. Maurice	"	" "A" per c. yd.	The W. J. Poupore Co., Ltd	June 19, 1913.		5 50
		" "B" per c. yd.				0 15
Ste. Anne des Monts	Wharf	Construction of	John Burns	March 5, 1914.		112,000 00
St. Jean Port Joli	"	Improvements, per c. y d	Elzear Caron	Dec. 15, 1913.		1·8639
Ste. Victoire	"	Construction of	Chas. Papillon & Chas. Gouin	April 3, 1913.		6,996 00
Three Rivers	New coal dock	Additional filling at	Collins & Giroux	Aug. 2, 1913.		2,360 00
Thurso	Wharf	Construction of	A. Belanger & Company	March 14, 1911	Sched. of prices.	

No. 1.—CONTRACTS let by the Department of Public Works of Canada, from April 1, 1913, to March 31, 1914—*Continued.*

Works.			Names of Contractors.	Date of Contract.	Amount.
HARBOURS AND RIVERS—*Continued.*					$ cts.
Ontario.					
Belle Ewart	Wharf and approach	Construction of	E. V. H. White	Nov. 10, 1913	8,394 00
Belleville	Wharf	Construction of and dredging	The Randolph Macdonald Co., Ltd	July 22, 1913	116,054 00
Bracebridge	Wharf and warehouse	Extension to	J. O. Roddick	Feb. 5, 1914	6,867 40
Brockville	Government tunnel and wharf property.	Improvements to	W. M. Leacy	Sept. 27, 1913	4,542 70
Bruce Mines; Hilton Basin, Walker Riv.	Dredging	Class "B" per c. yd	The Soo Dredging and Construction Co., Ltd.	July 28, 1913	0 32
Burlington	Pier (south)	Removal of	Mackay Paulin Construction Co., Ltd.	March 2, 1914	Sched. of prices.
"	Concrete revetment wall	Construction of	W. Z. Hutcheson & J. Latimer	May 19, 1913	21,800 00
Callander	Wharf	Extension to	David Darling	Feb. 12, 1914	6,500 00
Cataraqui River	Roadway, wharf and dredging		Fallon Bros.	May 28, 1913	Sched. of prices.
Choud Bay	Dredging	Class "A" per c. yd	Great Lakes Dredging Company, Ltd	July 7, 1913	3 85
		" "B" per c. yd			25
Cobourg	"	" "B" per c. yd	General Construction and Dredging Co., Ltd	May 30, 1913	0 90½
Collingwood	"	" "A" per c. yd	C. S. Boone Dredging and Cons. Co., Ltd	July 24, 1913	2 77
		" "B" per c. yd			0 59½
*Deseronto	"	" "A" per c. yd	R. Weddell & Co.	May 30, 1913	3 00
		" "B" per c. yd			0 20
Echo Bay	"	" "B" per c. yd	Superior Dredge and Dock Co., Ltd.	June 24, 1913	0 22
Fitzroy Harbour	Wharf	Construction of	Thos. & John Moran	March 14, 1914	Sched. of prices.
Fort William (McKellar River).	Dredging	Class "B" per c. yd	Great Lakes Dredging Co., Ltd.	May 27, 1913	0 60
French River	Dam across south channel	Construction of	Jennings & Ross Co., Ltd	Feb. 17, 1914	Sched. of prices
Gananoque	Pile wharf and approaches	" "	W. J. Sims, A. Robertson & R. A. Bingham	March 23, 1914	" "
Kenora	Wharf	" "	F. Gilbert	Sept. 3, 1913	7,500 00
Kincardine	Breakwater	" "	Wm. Bermingham	Jan. 21, 1914	Sched. of prices.
Kingsville	Dredging	Class "B" per c. yd	W. E. Hardison	July 7, 1913	0 15 and 25c.
Little Current	"	" "B" per c. yd	The Soo Dredging and Construction Co., Ltd.	Aug. 6, 1913	0 30
Meaford	Revetment wall (west side)	Repairs and extension to	Green & Woolrich	Dec. 1, 1913	Sched. of prices.
Napanee	Dredging	Class "B" per c. yd	W. E. Phin	April 14, 1913	0 19
Penetanguishene (Harbour).	"	" "B" per yd	Penetanguishene Dredging Company	Aug. 2, 1913	0 15
Picnic Island	"	Per c. yd	C. S. Boone Dredging and Cons. Co., Ltd	June 10, 1913	1 70
Port Arthur	"	Class "A" per c. yd	W. E. Phin	July 12, 1913	2 00
		" "B" per c. yd			0 13

Port Burwell	"	" "B" per c. yd	C. S. Boone Dredging and Cons. Co., Ltd	June 1, 1913	0 27½
Rainy River	"	" "B" per c. yd	J. P. Horne	Sept. 19, 1913	0 45
Richard's Landing	Wharf and warehouse	Construction of	John O'Boyle & Company	Jan. 14, 1914	Sched. of prices.
Sault Ste. Marie	Public wharf	Extension to	John O'Boyle	Nov. 22, 1913	26,973 00
"	Dry dock	Construction of	The Lake Superior Dry Dock Co., Ltd	March 28, 1914	Govt. subsidy of 3% during 25 years.
"	Public wharf	Extension of 88 lineal ft. (per ft.)	John O'Boyle	July 11, 1913	30 00
"	Dredging	Class "B" per c. yd	The Sault Ste. Marie Dredging and Construction Co., Ltd.	Aug. 6, 1913	0 30
Telegraph and Nigger Islands.	"	" "A" per c. yd	R. Weddell & Company	June 20, 1913	4 00
Thornbury	Harbour improvements		N. B. Horton & J. D. Stoddart	Jan. 7, 1914	Sched. of prices.
Tiffin	For grading certain spots		The Canadian Dredge and Cons. Co., Ltd	April 21, 1913	386 86
" Harbour	Excavation of 1,000 cub. yards of rock and 334 cub. yards of other material		" " "	May 19, 1913	2,350 00
Toronto	Reconstruction of portion of superstructure of east pier eastern entrance.		R. Wedell & Company	Oct. 9, 1913	13,398 00
Toronto	Contstruction of Sea Wall, Ship Channel, Breakwater, etc.		Canadian Stewart Co. Ltd	Oct. 29, 1913	Sched: of prices
Trenton	Dredging	Class 'A,' per cubic yard Class 'B,' per cubic yard	R. Weddell & Co.	July 4, 1913	3 95 0 22
"		Class 'A,' per cubic yard Class 'B,' per cubic yard	John E. Russell	July 10, 1913	3 30 0 25
Vail's Point	Wharf	Construction of	W. A. Grier & A. J. Greighton	Dec. 1, 1913	6,983 00
Victoria Harbour	Dredging	Class 'B,' per cubic yard	Canadian Dredge & Cons. Co. Ltd	April 13, 1913	0 12½
" "	Wharf	Construction of	McFarlane, Pratt & Henley Ltd	Oct. 21, 1913	Sched: of prices
Whitby	Dredging	Class 'A,' per cubic yard Class 'B,' per cubic yard	John E. Russell	July 10, 1913	2 25 0 16
Windsor	Dock	Construction of an addition of 169½ feet	E. A. Ponsford	June 24, 1913	19,000 00
		Manitoba.			
Gull Harbour	Wharf	Extension to	William Dewar	Feb. 2, 1911	8,944 00
Selkirk	Railway Dry Dock	Construction of	The Crandall Engineering Co.	Mar. 9, 1914	72,000 00
St. Andrews Dam (Lockport, Man.)	Asphalt pavement on highway bridge		D. J. Harry Webb	Sept. 24, 1913	6,290 00
		British Columbia.			
Ainsworth	Wharf	Construction of	J. Dancy & Co.	Mar. 18, 1914	9,242 00
Canoe	Wharf	"	Andrew McConnell	Oct. 13, 1911	5,150 00
False Creek (Van conver).	Dredging	Class 'B,' per cubic yard	Pacific Dredging Co. Ltd	July 8, 1913	0 21
" "	Dredging	Class 'B,' per cubic yard	Pacific Dredging Co. Ltd	Dec. 22, 1913	0 21
Fraser River (Wood ward Slough).	Wing Dam No. 3	Construction of	Hodgson, King and McPhelan Bros.	Jan. 14, 1914	Sched: of prices

[x] Transferred to John E. Russell.

No. 1.—Contracts let by the Department of Public Works of Canada, from April 1, 1913, to March 31, 1914.—*Continued.*

Works.			Names of Contractors.	Date of Contract.	Amount.
					$ cts.
Harbours and Rivers *Continued.*					
British Columbia—Concluded.					
Kaslo	Public Wharf	Construction of	Wm. English	Feb. 11, 1914	13,500 00
Pitt River	Dredging	Class 'B,' per cubic yard	Pacific Dredging Co. Ltd	Aug. 26, 1913	0 18
Roy's Beach	Wharf	Construction of	R. H. Wood	Dec. 17, 1913	6,360 00
Sand Heads (mouth of Fraser River)	Dredging	Class 'B,' per cubic yard	The Navigation Dredging Co. Ltd	Feb. 26, 1914	0 23½
Shelter Point	Wharf	Construction of	Hodgson & King	Dec. 13, 1913	5,350 00
Steveston	Jetty	Construction of	Brohe & Martin	Oct. 7, 1913	Sched: of prices
Summerland	Wharf	Construction of	Andrew McConnell	Dec. 8, 1913	" " "
Vancouver	Wharf	Construction of	Henry, McFee & McDonald	Aug. 20, 1913	" " "
Victoria Harbour	Excavation for levelling of the site to the grade of the wharf	per cubic yard	Sir John Jackson (Canada) Limited	Sept. 3, 1913	2 00
	and to build a concrete wall connecting breakwater with sea wall	per cubic yard	" " " "	" " "	11 00
" "	Wharves	Construction of	Grant, Smith & McDonald Ltd	Mar. 9, 1914	Sched: of prices.
Willow Point	Wharf	Construction of	Wm. English	Sept. 1, 1913	7,250 00
Vessels, Dredges and Plant.					
Construction of two (2) 500 cubic yards steel hopper scows.			The King ton Shipbuilding Co. Ltd.	Apr. 14, 1913	65,000
Supply of brooms and brushes for departmental dredging plant, Maritime Provinces, 1913-14.			W. H. Thorne & Co. Ltd	May 17, 1913	Sched: of prices
Supply of hose for departmental dredging plant, Ontario and Quebec, 1913-14			Goodyear and Tire Rubber Co. of Canada, Ltd.	May 17, 1913	Sched: of prices.
Supply of hose for departmental dredging plant, Ontario and Quebec, 1913-14			Canadian Consolidated Rubber Co. Ltd	May 17, 1913	Sched: of prices.
Supply of oils and greases for departmental dredging plant, Ontario and Quebec, 1913-14.			McCool Bros. & Co	May 17, 1913	Sched: of prices
Supply of chains for departmental dredging plant, Ontario and Quebec, 1913-14			Frothingham & Workman Ltd	May 17, 1913	Sched; of prices.
Supply of packing for departmental dredging plant, Maritime Provinces, 1913-14			General Supply Co. of Ottawa Ltd	May 17, 1913	Sched: of prices.
Supply of packing for departmental dredging plant, Ontario and Quebec, 1913-14			Canadian Consolidated Rubber Co. Ltd	May 17, 1913	Sched: of prices.
Supply of paints and paint oils for departmental dredging plant, Maritime Provinces, 1913-14.			Brandram, Henderson Ltd	May 19, 1913	Sched: of prices.
Supply of wire rope for departmental dredging plant, Maritime Provinces, 1913-14			B. Greening Wire Co. Ltd	May 19, 1913	Sched: of prices.
Supply of coal for departmental dredging plant, Montreal, 1913-14			Geo. Hall Coal Co. of Canada, Ltd.	May 20, 1913	Sched: of prices.
Supply of 450 tons of best quality ¾ steam lump coal for departmental dredges and tugs for Aylmer, Que., for 1913-14, per ton.			John Heney & Son, Ltd.	May 22, 1913	1 47
Supply of 450 tons of best quality of ¾ steam lump coal for departmental dredges and tugs for Buckingham, Que., 1913-14, per ton.			John Heney & Son, Ltd	May 22, 1913	1 68

Supply of 2,150 tons of best quality ¾ steam lump coal for departmental dredges and tugs for Ottawa, Ont., for 1913-14, per ton.	John Heney & Son, Ltd.	May 22, 1913.	4 75
Supply of 100 tons of anthracite coal for departmental dredges and tugs for Ottawa, Ont., for 1913-14, per ton.	John Heney & Son, Ltd	May 22, 1913.	7 00
Supply of 5 tons of best quality smith coal for departmental dredges and tugs for Ottawa, Ont., for 1913-14, per ton.	John Heney & Son, Ltd.	May 22 1913.	5 95
Supply of 200 tons of best quality ¾ steam lump coal for departmental dredges and tugs for Sturgeon Falls, Ont., for 1913-14, per ton.	John Heney & Son, Ltd.	May 22, 1913.	5 50
Supply of 2,000 short tons of steam lump coal for departmental dredging plant for Three Rivers, Que., for 1913-14.	Canadian Import Co.	May 28, 1913.	4 02
Supply of 1,600 long tons of steam lump coal for departmental dredging plant for Quebec, Que., 1913-14, per ton.	Canadian Import Co.	May 28, 1913.	5 05
Supply of 300 long tons of steam lump coal for departmental dredging plant for Quebec, Que., 1913-14, per ton.	Canadian Import Co	May 28, 1913.	5 65
Supply of brushes and brooms for departmental dredging plant for Ontario and Quebec for 1913-14.	Daly & Morin	May 30, 1913.	Sched : of prices.
Supply of hose for departmental dredging plant for Maritime Provinces for 1913-14.	Geo. T. Polley	May 30, 1913.	Sched : of prices
Supply of chains for departmental dredging plant for Maritime Provinces for 1913-14.	T. McAvity & Sons Ltd.	May 30, 1913.	Sched : of prices
Supply of paints and paint oils for departmental dredging plant for Ontario and Quebec for 1913-14.	The Ottawa Paint Works	May 30, 1913	Sched : of prices.
Supply of hardware for departmental dredging plant for Ontario and Quebec for 1913-14.	Frotingham & Workman Ltd.	May 30, 1913.	Sched : of prices.
Supply of wire for departmental dredging plant for Quebec for 1913-14.	The General Supply Co. of Canada, Ltd	May 30, 1913.	Sched : of prices.
Supply of wire for departmental dredging plant for Quebec for 1913 14.	The Dominion Wire Rope Co. Ltd.	May 30, 1913.	Sched : of prices.
Supply of oils and greases for departmental dredging plant for Maritime provinces for 1913-14.	The Imperial Oil Co. Ltd	May 30, 1913.	Sched : of prices.
Supply of pipe valves and fittings for departmental dredge plant for Ontario and Quebec for 1913-14.	Samuel Fisher	June 2, 1913.	Sched : of prices.
Supply of steam pipe valves for departmental dredging plant for Maritime Provinces for 1913 14.	Canadian Fairbanks Morse Co. Ltd	June 2, 1913.	Sched : of prices.
Supply of 225 tons of best quality of ¾ steam lump coal for departmental dredges and tugs for Chambly, Que., for 1913 14, per ton.	Andrew Baile	June 5, 1913.	4 68
Supply of 300 tons of best quality ¾ steam lump coal for departmental dredges and tugs for Haileybury Spur, Ont., for 1913 14, per ton.	Andrew Baile	June 5, 1913.	5 58
Supply of 225 tons of best quality ¾ steam lump coal for departmental dredges and tugs for St. Johns, Que., for 1913-14, per ton.	Andrew Baile	June 5, 1913.	4 33
Supply of 300 tons of best quality ¾ steam lump coal for departmental dredges and tugs for River du Loup (en bas) for 1913-14, per ton.	Andrew Baile	June 5, 1913.	5 43
Supply of 200 tons of best quality ¾ steam lump coal for departmental dredges and tugs for Cache Bay, Ont., for 1913-14, per ton.	Andrew Baile	June 5, 1913	5 33
Supply of 2,000 long tons of steam lump coal for departmental dredging plant for Maritime Provinces for 1913-14, per ton.	The Dominion Coal Co. Ltd.	June 27, 1913	4 25
Supply and delivery of creosoted timber in northern and eastern New Brunswick, per M.	Mackay Bros	June 30, 1913	65 00
Supply of hardware for departmental dredging plant for Maritime Provinces for 1913 14.	Frotingham & Workman Ltd	July 11, 1913.	Sched : of prices.
Construction of wooden tug with gasoline motor	The W. H. Kelly Lumber Co	July 14, 1913.	8,300 00
Supply of 300 long tons of steam coal (Albion lump) for departmental dredges and tugs for Charlettetown, P.E.I., for 1913 14, per ton	W. H. Noonan & J. R. Davies.	July 17, 1913	4 50

No 1.—CONTRACTS let by the Department of Public Works of Canada from April 1, 1913, to March 31, 1914.—*Concluded.*

Works.	Names of Contractors.	Date of Contract.	Amount.
Vessels, Dredges and Plant—Continued.			$ cts.
Repairs and oil installation on dredge "Fruhling"	Wallace Shipyards Ltd	July 28, 1913	9,400 00
Supply of valves and fittings for departmental dredging plant for Victoria, B.C., for 1913-14.	The Hickman Tye Hardware Co. Ltd	Aug. 2, 1913	Sched : of prices.
Supply of wire rope for departmental dredging plant for Victoria, B.C., for 1913-14	Peter McQuade & Son	Aug. 2, 1913	Sched : of prices.
Supply of packing for departmental dredging plant for Victoria, B.C., for 1913-14	Peter McQuade & Son	Aug. 2, 1913	Sched : of prices.
Supply of ship chandlery for departmental dredging plant for Victoria, B.C., for 1913-14.	Peter McQuade & Son	Aug. 2, 1913	Sched : of prices.
Supply of gasoline and coal oil for departmental dredging plant for Victoria, B.C., for 1913-14.	The Imperial Oil Co. Ltd	Aug. 2, 1913	Sched : of prices.
Supply of hardware for departmental dredging plant for Victoria, B.C., for 1913-14	Walter S. Fraser & Co. Ltd	Aug. 2, 1913	Sched : of prices.
Supply of coal for departmental dredging plant for Victoria, B.C., for 1913-14 per ton.	J. Kingham	Aug. 2, 1913	Sched : of prices.
Supply of coal for departmental dredging plant for Victoria, B.C., for 1913-14, per ton.	Victoria Fuel Co. Ltd	Aug. 2, 1913	Sched : of prices.
Supply of oils and greases for departmental dredging plant for Victoria, B.C., for 1913-14.	Imperial Oil Co. Ltd	Aug. 2, 1913	Sched : of prices.
Supply of paints, oils and varnishes for departmental dredging plant for Victoria, B.C., 1913-14.	Peter McQuade & Son	Aug. 2, 1913	Sched : of prices.
Supply of manilla rope for departmental dredging plant for Victoria, B.C., for 1913-14.	E. B. Marvin & Co	Aug. 2, 1913	Sched : of prices.
Supply of groceries for departmental dredging plant for Victoria, B.C., for 1913-14	H. O. Kirkham & Co. Ltd	Aug. 2, 1913	Sched : of prices.
Supply of fresh fish for departmental dredging plant for Victoria, B.C., for 1913-14	D. K. Chungraves Ltd	Aug. 2, 1913	Sched : of prices.
Supply of vegetables for departmental dredging plant for Victoria, B.C., for 1913-14	D. K. Chungraves Ltd	Aug. 2, 1913	Sched : of prices.
Supply of meats for departmental dredging plant for Victoria, B.C., 1913-14	P. Burns & Co. Ltd	Aug. 2, 1913	Sched : of prices.
Supply of 1,500 tons of steam lump coal for departmental dredging plant for New Glasgow, N.S., for 1913-14, per ton.	Mackenzie & Yorkston	Aug. 7, 1913	4 70
Supply and delivery of 3,300 feet of flexible bronze tubing at St. John, N.B	The Canadian Fairbanks Morse Co. Ltd.	Aug. 11, 1913	12,563 56
Construction of new hull and house for snag boat "Samson"	Coquitlam Shipbuilding & Marine Ry. Co. Ltd.	Aug. 29, 1913	20,845 00
Re-erection of Lobnitz Rock Breaker No. 2 for British Columbia fleet	W. B. Morgan	Sept. 4, 1913	19,411 00
Repairs to steamer "Speedy"	Polson Iron Works Limited	Sept. 8, 1913	4,950 00
Overhaul and installation of oil burning apparatus in dredge "King Edward"	British Columbia Marine Railways Co. Ltd.	Nov. 13, 1913	12,086 00
Conversion of dredge "Ajax" into an oil burner	British Columbia Marine Railways Co. Ltd.	Nov. 27, 1913	5,820 00
Supply of iron for one (1) 260 c. yds. dump scow	Vancouver Engineering Works Ltd	Dec. 23, 1913	3,650 00
Construction of one (1) 260 c. yds. dump scow	Wallace Shipyards Limited	Dec. 29, 1913	8,475 00
Installation of oil fuel tanks and oil burning apparatus in tug "Point Ellice"	Wallace Shipyards Limited	Jan. 19, 1914	4,386 00
Supply of 24 knots of submarine cable	Siemens Co. of Canada Limited	Mar. 11, 1914	46,700 00

Government Telegraph Service.

Freighting of supplies for Yukon telegraph lines, Quesnelle, B.C., (northwards) per lb.	Thomas Blench	May 23, 1913	0 69
Freighting of supplies for Yukon telegraph lines, Hazelton, B.C., (northwards) per lb.	Geo. M. Beirnes	May 21, 1913	0 17
Freighting of supplies for Yukon telegraph lines, Hazelton, B.C., (southwards) per lb.	Geo. M. Beirnes	May 21, 1913	0 11
Transportation of supplies for Yukon telegraph lines, Telegraph Creek, B.C., northwards and southwards.	J. Frank Callbreath	June 9, 1913	Sched : of prices.
Reconstruction of about 213·5 miles of telegraph line, Prince Edward Island	The Anglo-American Telegraph Co	Nov. 25, 1913	Estimate cost $33,613.00; $\frac{1}{2}$ to be paid by Government.

STATEMENT No. 2

PROPERTIES PURCHASED OR SOLD

No. 2. STATEMENT of properties purchased or sold by the Department of Public Works of Canada from April 1, 1913, to March 31, 1914.

Date of Conveyance.	Vendors.	Purchasers.	Description of Property.	For what purpose.	Area.	Price.
1913.						$ cts
April 2	City of Quebec	His Majesty	Leave to encroach in Buade St. Quebec, Que.	In connection with new Portico Post Office.	5 ft. 6 inches	Free grant.
" 2	Thos. A. Croker *et all*	"	Sale of land at Middleton, N. S.	Site for public building.	7,000 sq. ft.	2,500 00
" 2	Notice of Expropriation		Expropriated land at South Gut, N. S.	Approach to wharf	0.06 acre	
" 2	Kalil Farah	His Majesty	Sale of lots Nos 33, 34, 35 and 36 east side of Spruce St. New Liskeard, Ont., and lots Nos. 1, 2, 3, 4, 5, 6, 7 and 8 west side of Loughrin Ave, New Liskeard, Ont.	Lake Timiskaming reservoir.		
" 2	"	"	Sale of lots Nos. 46, 47, 48, 49, 50, 51, 52 and 53 east side of Paget St. New Liskeard Ont., and lots Nos. 38, 39, 41, 42, 43, 44, 45, 46 47, 48, 49 and 50 west side of Wellington St. New Liskeard, Ont.	Lake Timiskaming reservoir.		
" 2	"	"	Sale of lots Nos. 34, 35, 41, 42, 43, 44, 45, 46 and 47 east side of Wellington St. New Liskeard, Ont., and lots Nos. 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39 and 40 west side of Armstrong St. New Liskeard, Ont., and lots Nos. 21, 22, 25, 26, 27, 28, 29, 30 and 31 east side of Armstrong St. New Liskeard, Ont.	Lake Timiskaming reservoir		
" 2	"	"	Sale of lots Nos. 11, 13, 14, 15, 16 and 17 west side of May St. New Liskeard, Ont., and lots Nos. 13, 14 and 15 east side of May St. New Liskeard Ont,. and lots Nos. 1, 2, 3, 4, 5, 6 and 7 west side of the Boulevard, New Liskeard, Ont.	Lake Timiskaming reservoir		21,149 15
" 2	"	"	Sale of part of lot No. 9, New Liskeard, Ont	Lake Timiskaming reservoir.		
" 2		"	Sale of water lot Block "A", Nort Shore of Lake Timiskaming, New Liskeard, Ont.	Lake Temiskaming reservoir.		

"	7	Sadie Farah	"	Release of all damages to property at New Liskeard, Ont.	In connection with Lake Timiskaming reservoir.		965 00
"	11	Corporation of the Town of Durham, Ont.	"	Sale of part of lot No. 13, east side of Garratraxa St. Durham, Ont.	Site for public building	40 ft. x 78 ft	2,200 00
"	12	Corporation de la Ville de St. Ours, Que.	"	Transfer of a strip of land, part of lot No. 89, St. Ours, Que.	Site for wharf	9,438 sq. ft.	Free transfer.
"	12	Chas. K. Graham *et ux. et all*	"	Sale of lot No. 39, Vittoria St., Ottawa, Ont.	New building site		23,158 00
"	12	L. A. Rutledge *et all*	"	Sale of land at Watt Settlement, N. S.	Site for wharf	0.06 acre	25 00
"	14	Notice of Expropriation.		Expropriated lands at Toronto, Ont.	Custom Examining Warehouse site.		
"	14	" "		Expropriated land at Toronto, Ont.	General Post Office		
"	24	Mrs. Widow F. Pariseau	His Majesty	Sale of land and wharf thereon at Beloeil Village, Que.	Site for wharf	10,400 sq. ft.	1,500 00
"	25	The Geo. W. Churchill Estate Ltd.	"	Sale of land at Waltham, N. S.	Site for wharf	0.08 acre	1 00
"	28	V. W. Smith	"	Sale of lots Nos. 16, 17, 18 and 19, Block 34, Sec. 1, Prince Rupert, B. C.	Site for public building		95,000 00
"	28	Edmond Vézina	"	Permission to occupy at perpetuity lot No. 119 with right of way at Isle aux Grues, Que	Site for constructing and maintaining Telephone Line thereon.		100 00
"	29	Richelieu and Ontario Nav. Company.	"	Sale of portion of lot No. 134 with wharf thereon at St. François Xavier de Batiscan, Que.	Site for Government purposes.		8,000 00
May	2	His Majesty	Town of Maple Creek.	Sale of south ½ of lot No. 18, Block 9, Maple Creek, Sask.	Site for Town Hall		1,125 00
"	2	T. S. Vardon	His Majesty	Sale of land at Malbaie, Que.	Site for breakwater	1.33 acres	500 00
"	2	Edw. Hotton *et all*	"	Sale of part of cadastral lot No. 9K and 9L, Malbaie, Que.	Site for breakwater	0.15 acre	200 00
"	2	Aaron W. Hillborn *et all*	"	Sale of part of lot No. 10, 3rd Con. Hespeler, P. Q.	Site for public building	1/5 acre	3,000 00
"	12	J. Kennedy	"	Sale of land east side of Musquodoboit Harbour, N. S.	Site approach to wharf	0.0045 acre	15 00
"	15	Corporation of District of West Vancouver.	"	Sale of wharf and Quit Claim to the foreshore West Vancouver, B. C.	Site for wharf	5,987-8/10 ft.	6,000 00
"	16	Geo. Nickle	"	Sale of lots Nos. 21 and 22, Block 3, Melita, Man.	Site for public building		1,400 00
"	21	A. E. Pontbriand	"	Sale of cadastral lot No. 685, Sorel, Que.	Site for St. Joseph de Sorel wharf.	36,755 sq. ft.	15,000 00
"	24	Corporation of East Angus.	"	Sale of lot No. 13-82, 3rd Range East Angus, Que.	Site for public building	36,075 ft	5,000 00
"	29	Alphonse Lambert	"	Sale of lot No. 933, River du Loup Maskinonge Co., Que.	Site for dam and lock	5.31 arpents	531 00
"	29	Louis Cloutier	"	Sale of lot No. 109, River du Loup Maskinonge Co., Que.	Site for dam and lock	0.88 arpents	88 00
"	29	Onésime Plante	"	Sale of lot No. 108, River du Loup, Maskinonge Co., Que.	Site for dam and lock	1.158 arpents	115 00
June	2	Edwin Smale *et ux*	"	Sale of part of lot No. 3, at Port Bruce, Ont.	For Turning Basin	0.094 acre	1 00

No. 2—STATEMENT of properties purchased or sold by the Department of Public Works of Canada from April 1, 1913, to March 31, 1914.—*Continued.*

Date of Conveyance.	Vendors.	Purchasers.	Description of Property.	For what purpose.	Area.	Price.
1913.						$ cts.
" 4.	Governing Council of the Salvation Army in Canada.	His Majesty	Sale of part of lot No. 19, 11th Con. Township of Wallace, Palmerston, Ont	Site for Post Office	1.20 acres	1,750 00
" 9	I. N. Linett	"	Sale of lot No. 17, Block 1, Sub-division of lot No. 11, District lot No. 360, Range 5, Coast Dist. Terrace, B. C.	Site for Telegraph Office		1 00
" 10	Reveillon Freres Trading Co. Ltd.	"	Sale of lot No. 12, Block 3 in River lot No. 22, Lesser Slave Lake Settlement, Grouard, Alta.	Site for Telegraph Office		500 00
" 13	His Majesty	M. & C. Egleson	Certificate of Judgment *re* expropriated land, Sussex St. Ottawa, Ont.	Site for new departmental building.		9,200 00 and
				Interest at 5% from Jan. 15, '08 to Feb. 28, '11		1,136 71
" 17	Hon. Wm. Pugsley	His Majesty	Sale of part of lot No 32, north side of Wellington St., rear northerly parts of lots Nos. 31 and 32, part of lot No. 41, south side of Vittoria St. and portion of ordnance land, between northerly limit of Vittoria St. and Ottawa River, Ottawa, Ont.	Site for new departmental building.	17,043 sq. links. / 30¾ perches.	75,000 00
" 18	Notice of Expropriation		Expropriated land at Ste. Anne des Monts, Que.	Site for wharf	4,036 ft	
" 20	Chas. Holt *et ux*	His Majesty	Sale of wharf property at Port Credit Harbour, Ont.	Site for Government purposes.	21.19 acres	30,000 00
" 20	Notice of Expropriation		Expropriated land at Union Bay, B. C.	Site for public building	0.275 acres	
" 24	Marine and Fisheries Dept.	Public Works Dept.	Transfer of lands in the bed of Public Harbour at Prince Rupert, B. C.	Site for Government purposes.		Free transfer.
June 25	James Mackerrow	His Majesty	Sale of lots Nos. 432, 434, 434½, together with two dwellings on Spadina Av., Toronto, Ont.	For postal station (Spadina and Oxford.)		8,500 00
" 27	Gov't of British Columbia	Dom. Govt	Transfer of land described in B. C. statutes, 1913, Victoria, B.C.	For harb. improvements		Free transfer.
" 30	Pierre Lortie	His Majesty	Sale of part of lots Nos. 527 and 534 at Beauport, Que.	For post office	8,964 ft.	2,500 00
July 1	Notice of Expropriation		Expropriated lands at Red River, Man	For improvements St. Andrews Rapids, Man		

" 5	J. Brand, *et ux*	His Majesty	Sale of part of lot No. 19, 11th Con., Tp. of Wallace, Palmerston, Ont.	Site for post office	1-20 acre	550 00
" 7	Corporation of the Township of Malahide.	"	Sale of lot No. 6, Port Bruce, Ont.	For turning basin	.092	1 00
" 8	Notice of Expropriation		Expropriation of part of water lots Nos. 38, 39, 40, 41 and 42, and part of strip of land at Toronto, Ont.	Site for e'x'g-warehouse and postal station "A"		
" 9	Corporation of the town of Napanee	His Majesty	Sale of lots No. 2 and 3, and strip of land 45 ft. in width, south of Robert St. Napanee, Ont.	Site for drill hall		1 00
" 10	G. McClure	"	Sale of lots Nos. 20, 21 and 22, blk 20, Carman, Man.	Site for public building		7,500 00
" 10	E. Winkler	"	Sale of lots Nos 19, 20 and 21, blk 5, sub-div. of south ½ Sec. 5, Tp. 1, R. 1. Gretna, Man.	Site of public building		3,000 00
" 12	The National Breweries, Ltd.	"	Sale of part of lots Nos. 98, 42, 140 and part of lot No. 141, Ste. Therese de Blainville, Que.	Site for public building		8,500 00
" 16	Certificate of Title		Acquisition of lots Nos. 190 and 191 at Elmwood, Man.	Site for govern't purposes		Grant.
" 16	Notice of Expropriation		Expropriation of additional land and property at Lévis, Qué.	Site for new dry dock		
" 16	Arthur C. Payson, *et al*	His Majesty	Sale of land and land covered with water at Westport, N.S.	Site for breakwater	0.27 acre	100 00
" 21	Certificate of title		Sale of land, being lots Nos. 18 and 19, east side of Armstrong St., New Liskeard, Ont.	For Timiskaming reservoir.		
" 21	Margaret E. Simpson	His Majesty	Sale of land and land covered with water at French River, P.E.I.	Site for wharf		300 00
July 23	Sravru Cavadia	"	Bill of sale of tug *George W. Yates*	Gov't purposes		29,529 00
" 28	J. W. Churchill, *et al*	"	Sale of land, wharf property and water lot at Hansport, N.S.	Site for wharf		1,750 00
" 29	George McDonald *et ux*	"	Sale of part of lot No. 14, west side of Kent St., Ottawa, Ont.	Site for new departmental buildings.		9,500 00
" 31	Fanny Pratt	"	Sale of lot No. 5, north side of Wellington St, Ottawa, Ont.	Site for new departmental buildings.		35,210 00
" 31	J. S. Davis	"	Sale of part of lot No. 226, Latchford, Ont.	For dam	1,881 sq. ft.	250 00
August 1	W. A. Hollinrake, *et ux*	"	Sale of lots Nos. 1 and 2 and part of lot No. 3 east side of Brant Av., Brantford, Ont.	Site for drill hall		15,631 92
" 3	E. B. Crowe and wife		Sale of land and right of way 25 ft. wide at Sterlings Brook, N.S.	Site for wharf	2.05 acres	40 00
" 4	Certificate of title		Sale of lots Nos. 17 and 18, blk 17, parish of St. Boniface, Man.	Site for Winnipeg Fort Rouge postal station.		
" 5	Certificate of title		Sale of lot No. 35, part of sec. 36 at Comox, B.C.	Site for Pub. building		
" 8	Thomas Farrer, *et ux*	His Majesty	Sale of land at Bass River, N.B.	Right of way to wharf	1·86 acre	100 00

No. 2.—STATEMENT of properties purchased or sold by the Department of Public Works of Canada, from April 1, 1913, to March 31, 1914—*Continued.*

Date of Conveyance.	Vendors.	Purchasers.	Description of Property.	For what purpose.	Area.	Price
1913.						$ cts.
Aug. 8	W. J. Yates	His Majesty	Sale of part of Reserve, southwesterly side of Wabbe Creek, between May St. and Whitewood Ave., New Liskeard, Ont.	Lake Timiskaming reservoir.	0·03 acre	825 00
" 8	L. J. Fitzpatrick	"	Sale of lots 1, 2, 3, west side of Roberts St., and lot No. 6, north side of Oak Ave., and lots Nos. 1, 2, 3 and 4, east side of Roberts St., New Liskeard, Ont.	" "		2,475 00
" 8	Matthew Upton	"	Sale of lots Nos. 4 and 5, south side of Whitewood Ave., New Liskeard, Ont.	" "	8,363·52 ft	2,200 00
" 14	His Majesty	City of Chilliwack	Transfer of a strip of land, northwest corner of lot No. 3, being west ½ of lots Nos. 4 and 11, Block 17, Chilliwack, B.C.	For a lane	0·0378 acre	Free transfer.
" 15	Sarah Jean Scott	His Majesty	Sale of lot No. 36, east side of Wellington St., New Liskeard, Ont.	Lake Timiskaming reservoir.	4,328·12 ft	350 00
" 15	Certificate of title		Sale of west ½ north east ¼, Section 5, Township 58, Range 9, St. Paul de Metis, Sask.	For telegraph office		400 00
" 16	Wm. Sheppardson	His Majesty	Sale of lot No. 5, west side of May St., New Liskeard, Ont.	Lake Timiskaming reservoir.	4,270·46 ft	218 50
" 16	Jos. Irwin	"	Sale of lots 6, 7, 8 and 9, west side of May St., New Liskeard, Ont.	" "	17,081 ft	1,600 00
" 16	Peter Gorman, *et ux*	"	Sale of lot No. 14, west side of Kent St., Ottawa, Ont.	Site for new departmental buildings		6,500 00
" 18	Samuel Greenwood	"	Sale of lot No. 12, west side of May St., New Liskeard, Ont.	Lake Temiskaming Reservoir.	4,270·46 ft	700 00
" 19	James Scott	"	Sale of lot No. 33, east side of Wellington St., New Liskeard, Ont.	" "	4,328·12 ft	450 00
" 19	Wm. J. Yates	"	Sale of lots Nos. 1 and 2, south side of Sharpe St., New Liskeard, Ont.	" "	10,263·75 ft	700 00
" 21	Ottawa Home for Friendless women.	"	Sale of lot A4, Wellington St., Ottawa, Ont.	New departmental buildings site.	6,930 ft	37,225 00
" 22	Arthur Bouchard	"	Sale of eastern portion of lot No. 100, and western portion of No. 99, Ste. Genevieve, Champlain Co., Que.	Site for wharf	1,626 ft	500 00

"	22....	Arthur St. Armand.....	"	.....	Sale of western portion of lot No. 102, Ste. Genevieve, Champlain Co., Que.	"	5,514 ft.....	400 00
"	23.....	Notice of expropriation ...		.....	Expropriation of land, part of lot No. 1, Con. E, Island No. 1, Fort William, Ont.	McKellar River improvements.	4·41 acres.	
"	23	" "		.....	Expropriation of land, part of lot No. 3, Con. E, Island No. 1, Fort William, Ont.	" "	1·53 acres.	...
"	23....	" "		.....	Expropriation of land, part of lot No. 3, Con. E., Island No. 1, Fort William, Ont.	" "	1·02 acres.	.....
"	23	" "		.....	Expropriation of land, part of lot No. 4, Con. E, Island No. 1, Fort William, Ont.	" "	1·39 acres.	....
"	23	" "		.....	Expropriation of land, part of lot No. 5, Con. E, Island No. 1, Fort William Ont.	" "	·95 acres.....	.....
"	23....	Notice of Expropriation...		.....	Expropriation of land, part of lot No. 5 Con. E, Island No. 1, Fort William, Ont.	McKellar River improvements.	1 21 acres.	
"	23	" " ..		.....	Expropriation of land, part of lot No. 6 Con. E, Island No. 1, Fort William, Ont.	" "	2·34 acres.	
"	23. ..	" " ..		.....	Expropriation of land, part of lot No. 7 Con. E, Island No. 1, Fort William, Ont.	" "	1·12 acres.	
"	23	" " ..		.....	Expropriation of land, part of lot No. 9 Con. E. Island No. 1, Fort William, Ont.	" "	2·02 acres.	
"	23.....	" " ..		.....	Expropriation of land, part of lots Nos. 4, 3 and 5, Con. D, Island No. 2, at Fort William, Ont.	" "	Lot 4 2·49 acres, lot 3 1·40 acres. lot 5 0·07 acres.	
"	23.....	" "		.....	Expropriation of land, part of lot No. 5 Con. D, Island No. 2, Fort William, Ont, and land covered by water in front of lot No. 5 Con. D, Island No. 2, Fort William, Ont.	" "	1·10 ac., 0·31 ac.	
	23..	" " ..		.....	Expropriation of land, part of lot No. 7 Con. D, Island No. 2, Fort William, Ont., and land covered by water in front of lot No. 6, Con. D. Island No. 2, Fort William, Ont.	" "	0·50 ac., 0·31 ac.	
	....	" " ..		.....	Expropriation of lands, portions of road allowances in front of Concessions D & K, Island No. 2, and in front of 5th Ave, Island No. 2, and of lots Nos. 2 and 1, Con. D, Island No. 2, and of lot No. 9, Con. K, Island No. 2, and of lots Nos. 6 and 7, Con. D, Island No. 2, at Fort William, Ont.	" "	9·61 acres.	

No. 2.—STATEMENT of properties purchased or sold by the Department of Public Works of Canada, from April 1, 1913, to March 31, 1914—*Continued.*

Date of Conveyance.	Vendors.	Purchasers.	Description of Property.	For what purpose.	Area.	Price.
1913.						$ cts.
Aug. 23	Notice of Expropriation		Expropriation of land, part of lot No. 10 Con. K, Island No. 1, Fort William, Ont., and portions of road allowance in front of Con. E and K, Island No. 1, and portions of south end of 5th Avenue, portion of south end of Kingsby Avenue and portions of south end of 10th Avenue, at Fort William, Ont.	McKellar River Improvement.	11·91 ac., 13·24 ac.	
" 23	" "		Expropriation of lots Nos. 2 and 3, (436 Spadina Avenue,) Toronto, Ont.	Site for postal station (Spadina Avenue).		
" 25	Henry Hartman	His Majesty	Sale of lots Nos. 1, 2, 3, 4 and 5, south side of Beavis Terrace, New Liskeard, Ont.	Lake Timiskaming reservoir.		600 00
" 26	Wm. A. Patterson	"	Sale of land at Tatagamouche, N.S.	Site for wharf	0·55 acre	60 00
" 26	F. T. Gardner *et ux.*	"	Sale of land at Brooklyn, N.S.	" breakwater	0·19 acre	450 00
" 26	L. J. Fitzpatrick	"	Sale of part of Reserve land, Murray St, block 21, at New Liskeard, Ont.	Lake Timiskaming reservoir.	0·4 acre	1,200 00
" 29	Alex. Moore *et ux.*	"	Sale of portion of lot No. 4, west side of William St, Palmerston, Ont.	Site for public building	24 ft. x 66 ft	250 00
" 29	Hugo Carstens	"	Sale of lots Nos. 1 and 2, block 12, Parish of St. James, Winnipeg, Man.	Site for postal station (Portage Avenue).		35,000 00
" 30	Dept. of Indian Affairs	Dept. of Public Works.	Transfer of part of Indian Reserve, Fort William, Ont.	For boat landing on south side of Kaministiquia river.	2·03 acres	3,045 00
Sept. 1	Thomas Babineau *et ux*	His Majesty	Sale of land and premises, Richibucto, N.B.	South Beach Wharf	251 acres	150 00
" 2	W. W. Coleman	"	Sale of part of lot No. 2, block 23, Stonewall, Man.	Site for public building	40 ft. x 76 ft	2,500 00
" 5	D. Thompson *et ux*	"	Sale of land at Little Dipper Harbour N.B.	" breakwater	1/9 acre	50 00
" 10	T. B. Collins *et ux*	"	Sale of part of lot No. 12, 5th Con. Township of Cavan, Millbrook, Ont.	" public building	66 ft. x 80 ft	1,000 00
" 10	Certificate of title		Sale of lot No. 4, block 61, Calgary, Alta.	" " "		
" 12	" "		Sale of lots Nos. 31 and 32, Vermilion Alta.	" " "		

"	17	His Majesty	Chas. McCrea	Sale of lot No. 148, south side of Elm St, Sudbury, Ont.	Private enterprise		23,101 00
"	18	M. McKinnon *et ux.*	His Majesty	Sale of part of lot No. 65, Rocky Point, P E I.	Site for public wharf.	3½ acres	275 00
"	19	W. A. Parker	"	Sale of lots Nos. 9 and 10, block 116, part of Sect. 30, Township 3 Range 8, Manitou, Man.	" " building		1,150 00
"	22	The Municipal Corporation of the Town of Barrie.	"	Sale of lots Nos. 1, on the east side of Small St, and 1, on west of Height St, Barrie, Ont.	" Drill Hall	1 acre	1 00
"	22	Notice of Expropriation.		Expropriation of land covered by water at Callander, Ont.	For wharf extension	6·56 acres	
"	22	C. F. Beattie *et ux*	His Majesty	Sale of land at Carrsbrook, N S.	" breakwater	½ acre	50 00
"	23	Notice of Expropriation		Expropriated land at Albert, N B.	" wharf	1·4 acre.	
"	24	Certificate of title		Sale of most south easterly ½ of lot No. 8, block 9, Indian Head, Sask.	Site for forestry branch building.		2,500 00
"	26	Mrs. Louis Comtois	His Majesty	Sale of land and wharf thereon at Beloeil Village, Que.	Site for wharf.	5,252 sq. ft.	1,400 00
"	27	T. H. Carling *et al*	"	Sale of lot No. 11 and part of lot No. 10 at London, Ont.	" public building		130,000 00
"	29	W. C. Edwards *et al*	"	Sale of rear parts of lot No. 21, Kent and Wellington Sts, and lot No. 22 on Kent St, Ottawa, Ont.	" new departmental building.		25,000 00
Oct.	2	His Majesty	Jos. Hogue	Sale of lot No. 140 and westerly 12 feet of lot No. 141, Ste Therese de Blainville, Que.	Private enterprise		3,000 00
"	3	Estate of Mary Hall	His Majesty	Sale of lot No. 7, north side of Wellington St, Ottawa, Ont.	Site of new departmental building.		79,575 00
"	3	Wm. Arnold *et al*	"	Sale of portions of lots Nos. 9 and 10, west side of Kent St, Ottawa, Ont.	Site of new departmental building.		106,000 00
"	4	La Cie Chantiers de St. Laurent Ltee.	"	Bill of Sale of Gasoline Yacht "Jeannette".	Government purposes		4,000 00
"	6	Notice of Expropriation		Expropriated land at Nicolet, Que.	For right of way to wharf.	3,712 sq. ft.	
"	7	" "		Expropriated land at Woodward's Cove, N.B.	" " " breakwater.	0·34 acre.	
"	8	H. W. Laird & P. McAra	His Majesty	Sale of lots Nos. 1, 2 and 3, block 284, Regina, Sask.	Site for Customs building.		65,000 00
"	8	John Pearce	"	Sale of part of lot No. 4, Plan M, 79 New Liskeard, Ont.	Lake Timiskaming reservoir.	0·65 acre.	100 00
"	8	Erastus Sternburg	"	Sale of part of lot No. 2, east side Lake Shore Road, New Liskeard, Ont.	" " "	0·29 acre.	200 00
"	8	Charles Brooks	"	Sale of part of lot No. 10, 2nd Con. New Liskeard, Ont.	" " "	62·6 acres	4,382 00
"	8	Elizabeth Davis	"	Sale of part of lot No. 11, 2nd Con. New Liskeard, Ont.	" " "	26·06 acres	1,824 20
"	8	E. F. Stephenson	"	Sale of part of lot No. 12, 2nd Con. New Liskeard, Ont.	" " "	41·90 acres	2,694 00
Oct.	10	Notice of Expropriation		Expropriation of land at Kaslo, B.C.	Site for wharf.	·073 acre	
"	11	S. A. Ferrie, A. D. Pickell and J. A. Foley.	His Majesty	Sale of lot No. 1, and 15 feet of lot No. 2, Block 10, North Battleford, Sask.	" public building		24,000 00

No. 2—STATEMENT of Properties purchased or sold by the Department of Public Works of Canada from April 1, 1913, to March, 31, 1914—*Continued.*

Date of Conveyance.	Vendors.	Purchasers.	Description of Property.	For what purpose.	Area.	Price.
1913.						$ cts.
Oct. 11	Notice of Expropriation		Expropriated land at Ste. Adelaide de Pabos, Que.	Right of way to bk'water.	36,106 ft.	
" 11	Walter P. Pritchard	His Majesty	Sale of part of North west ¼ Sect. 12, Tp. 20, Range 14, Pritchard, B.C.	Site for wharf	159 acre	1 00
" 16	Estate of the late James Morgan.	"	Retrocession and reconveyance of land covered by water, Sorel, Que.	For high level wharf	60,000 sq. ft. & interest from September 1900.	4,000 00
" 16	Richelieu and Ontario Nav. Company.	"	Retrocession and reconveyance of land covered by water at Sorel, Que.	" " "	7·04 acres	15,000 00
" 16	Notice of Expropriation		Expropriation of land at Comeau's Cove, N. S.	For breakwater	1·62 acre	
" 21	Angus J. McLean	His Majesty	Sale of lot No. 64, Little Sands, P.E.I.	" wharf		250.00
" 23	Provincial Gov't of British Columbia.	Dominion Gov't.	Transfer of land and wharf at Squamish, B.C.	Gov't purposes		Free transfer.
" 23	John Otto	His Majesty	Sale of lot No. 11, east side of May St., New Liskeard, Ont.	Lake Timiskaming reservoir.	4328·12 sq. ft.	400 00
" 23	F. H. Steel *et al.*	"	Sale of piece of land at Port Maitland, N.S.	Anchorage site		200 00
" 25	P. Angers	"	Sale of cadastral lots Nos. 22D-1 22nd Con and part of 22B-2 at Jouquieres, Que.	Site for public building	55x100 ft.	3,500 00
" 28	Gabriel Legault	"	Sale of part of lot, No. 167, Papineauville, Que.	" wharf	3,912 ft	100 00
" 29	His Majesty	Corporation of City of Grand Forks, B.C.	Grant of land, portion of Block 16, at Grand Forks, B.C.	Private enterprise		Fee grant.
" 31	Miss M. J. St. Laurent	His Majesty	Sale of land at St. Ours, Que.	Site for public building	100x60 ft.	1,200 00
Nov. 1	His Majesty	L. L. Baker	Removal and sale of building on lots Nos. 16, 17, 18 and 19, Block 34, Prince Rupert, B.C.	Private enterprise		260 00
" 5	R. C. Douglas	His Majesty	Sale of part of lot No. 34, North side of Victoria St., Ottawa, Ont.	Site for new departmental buildings.	14½ perches	10,066 11
" 6	F. S. Brickendam	"	Sale of part of Reserve, south west side of Wabee Creek, New Liskeard, Ont.	Lake Timiskaming reservoir.	½ acre less 0·01 acre.	350 00
" 6	Notice of Expropriation		Expropriation of land at Peterborough, Ont.	For dry dock	1·33 acre	

"	7	Geo. Duncan	His Majesty	Sale of part of lot No. 20, and part of Town Lot No. 2, Block 1, Ingersoll, Ont.	Site for drill hall	2·5 acre	2,500 00
"	8	Edward Reid	"	Bill of sale of Tug "Mabel Reid" and Dredging Plant.	Gov't purposes		17,500 00
"	8	John McDonald	"	Sale of lot No. 346, north side of Scott St., New Liskeard, Ont.	Lake Timiskaming reservoir.	·7 acre	250 00
"	11	Certificate of Title		Sale of part of Sub-section 31, Sec. 18 and adjacent Islands, Victoria, B.C.	Site for Victoria breakwater.	18·87 acres	
"	13	John Renaud, sr.	His Majesty	Sale of north westerly part of lot No. 660, Parish of St. Ambroise de la Jeune Lorette, Que.	Site for Public building	9402·2 sq. ft.	2,250 00
"	17	His Majesty	Hon. H. Lennox.	Permission to construct a roadway westerly of water lot No. 15, at Kempenfeldt, Ont.	Private enterprise		1 00
"	17	J. E. Coulter *et al.*	His Majesty	Sale of part of lot No. 20, Block 1, Ingersoll, Ont.	Site for drill hall		4,000 00
"	18	Daniel Duggan	"	Perpetual right to flood part of lot No. 5, east side of Lake Shore "A", New Liskeard, Ont.	Lake Timiskaming reservoir.	0·68 acre	100 00
"	18	J. V. Childs	"	Sale of lots Nos. 25 and 26, west side of Armstrong St., New Liskeard, Ont.	" " "	8656·24 ft	550 00
"	19	H. P. Lauzon *et ux*	"	Sale of west ½ of lot No. 18, 9th Con. at Georgetown Village, Ont.	Site for public building		1,200 00
"	21	Dame Jos. Cote	"	Sale of part of cadastral lot No. 86-2 1st, Range, Parish of Grondines, Que.	Right of way to wharf	1485 ft	25 00
"	21	The Chat's Falls Realty Co. Ltd.,	"	Sale of lot No. 6, west side of Harbour St., Fitzroy Harbour, Ont.	Site for wharf		50 00
"	21	Provincial Gov't of Prince Edward Island	Dominion Gov't.	Sale of land and land covered with water shore front, etc., McAulay's Shore, P.E.I.	" "		1 00
"	21	John Pollock and wife	His Majesty	Sale of lots Nos. 8 and 9, north side of Main St., Norwich, Ont.	" Public building		1,750 00
"	21	M. E. Akenhead and S. F. Whittey.	"	Sale of west part of lot No. 10, Block 56, Nanaimo, B.C.	" " "		9,500 00
"	24	John Ward	"	Sale of part of lot No. 156, Range 1, Shoal Bay, B.C.	" wharf		1 00
"	24	John Fitzpatrick	"	Release of north west ¼ Sec. 33, Tp. 20, Range 20, Last Mountain Lake, Sask.	Craven dam	99·08 acres	3,875 00
"	25	M. E. Spencer and J. B. Nicholson	"	Sale of west part of lot No. 12, Block 56, Nanaimo, B.C.	Site for public building		7,500 00
"	26	James Wigmore *et ux*	"	Sale of lot No. 17, south side of Vittoria St., Ottawa, Ont.	" Departmental buildings.		16,400 00
"	28	H. R. and F. Jepson	"	Sale of part of west part of lot No. 11, Block 56, Nanaimo, B.C.	" Public building		7,500 00
"	29	C. F. Saunders *et ux*	"	Sale of lot No. 3, Block "C" Village of Burford, Ont.	" " "		2,000 00
"	29	M. V. Saurette	"	Sale of lot No. 4563, and ½ of north west part of 4564, Verdun, Que.	" " "	105x131·6 ft	17,949 75

No. 2.—Statement of properties purchased or sold by the Department of Public Works of Canada from April 1, 1913, to March 31, 1914.—*Continued.*

Date of conveyance.	Vendors.	Purchasers.	Description of Property.	For what purpose.	Area.	Price.
1913.						$ cts.
Dec. 1	Certificate of Title.		Sale of lots Nos. 10, 11 and 12, Parish of St. James, (Winnipeg) Man.	Site for Drill hall.		6,000 00
" 5	Marquis Estate	His Majesty	Sale of lot No. 10, west side of May St., New Liskeard, Ont.	Lake Timiskaming reservoir.	4,270·46 ft	650 00
" 6	Mrs. A. E. Thibault	"	Sale of lot No. 5, and south ½ of lot No. 4 east side of May St., New Liskeard, Ont.	" " "	6,485 ft	600 00
" 6	S. D. Eplett	"	Sale of lots Nos. 23 and 24, east side of Armstrong St., New Liskeard, Ont.	" " "	8,540·93 ft	325 00
" 6	S. D. Eplett	"	Sale of lots Nos. 18 and 19, west side of May St., New Liskeard, Ont.	" " "	8,540·90 ft	300 00
" 6	S. D. Eplett	"	Sale of lot No. 20, east side of Armstrong St. New Liskeard Ont.	" " "	4,270·46 ft	425 00
" 6	E. McLeod	His Majesty	Sale of lots Nos. 8 and 9, east side of May St., New Liskeard, Ont	Lake Timiskaming reservoir.	8,656.24 ft	950 00
" 10	C. C. Farr	"	Release for all claims for damages to portions of lots Nos. 66 and 67. Township of Guigues (Timiscamingue Que.)	" "		92 50
" 11	T. McCanns and A. McKelvie.	"	Sale of 3 parts of Blocks A B C and sale of 3 parts of Blocks B C at New Liskeard, Ont.	" " " "	4,192 acres ± 5,335 acres ±	6,442 60
" 11	S. M. Herron	"	Release for damages and all claims re lots Nos. 14, 15 and 16 at New Liskeard. Ont.	" "		75 00
" 11	Robert Mauger.	"	Sale of land at Ste. Adelaide de Pabos, Que.	Site for breakwater.	36,106 ft	300 00
" 12	Grand Trunk Railway Co.	"	Sale of land covered by water alongside of lot No. 2, 26th Con. Tp. of Ainsworth, Callender, Ont.	" wharf	6·56 acres	100 00
" 13	Department of Public Works.	Dept. of Railways & Canals.	Transfer of water lot at Mulgrave, N.S	For Government purposes.		Free transfer.
" 13	New Liskeard Curling Association.	His Majesty	Sale of easterly 48 ft. by full width of lots Nos. 19, 21, 22, 23 and 24 west side of Armstrong St., New Liskeard, Ont.	Lake Timiskaming reservoir.	9,123 84 ft	700 00
" 18	J. H. Halliday *et ux*	"	Sale of land at Leonard's Cove, N.S.	For breakwater	0·18 acre	25 00

	19.	Notice of Expropriation.		Expropriated land at Wolfville, N.S.	wharf	0·59 acre	
"	19.	Fidelity Realty Co., Ltd.	His Majesty	Sale of parts of lots Nos. 30 and 31 north side of Wellington St., Ottawa, Ont.	Site for new departmental buildings.		62,928.00 plus interest from 9 March '12.
"	20.	Certificate of Title.		Sale of River Lot No. 61 and portion of most southerly 38·2 feet of River lot No. 61, Selkirk, Man.	For Marine Railway.		
"	22.	J. A. Stewart *et ux.*	His Majesty	Sale of lot No. 3, Cockurn Island, Perth, Ont.	Site for public building.		3,000 00
"	22.	Julia O'Keefe.	"	Sale of parcels of land south side of Sheffield St., St. John, N.B.,	" armoury		1,200 00
"	23.	Alfred Wallace.	"	Bill of Sale of Dredge "Orange Peel".			18,000 00
"	26.	Elizabeth King.	"	Sale of part of lot No. 6, Gravenhurst, Ont.	Site for public building.		1,200 00
"	26.	His Majesty	A. Jewett.	Sale of Immigration Building on G.T.R. Co's property, Yonker, Sask.	Private enterprise.		100 00
"	29.	M. P. Cyr	His Majesty	Sale of lot No. 37, Range 2, Tp. of Guigues (Timiskaming) Que.	Lake Timiskaming reservoir.	100 acres	350 00
	1914.						
Jan.	2	A. Collette and C. J. Collette.	"	Sale of land and premises, north side of Buctouche, N.B.	Site for public building.		500 00
"	2	T. E. Armstrong.	"	Sale of land, part of lot No. 9, 5th Con. Tp. of Harris (Timiskaming), Ont.	Lake Timiskaming reservoir.	160 acres	480 00
"	6.	Certificate of Title.		Sale of lots Nos. 22, 23, 24 and 25, Block 2, excepting most easterly 6 ft. at High River, Alta.	Site for public building.		
"	7	H. H. Bradbury and J. T. Webb *et ux.*	His Majesty	Sale of part of lot No. 7, Con. E, Isld. No. 1, Fort William, Ont.	Kamisnistiquia river, improvements.	2·70 acres	3,282 30
"	10.	J. G. D. Knight and A. M. Fraser.	"	Sale of parts of lots Nos. 10 and 11, Block 31 Elkorn, Man.	Site for public building.	53 x 130 ft	1,800 00
"	12.	Samuel Campbell.	"	Sale of lot No. 311, Thurso Village, Que.	" wharf		1,070 00
"	12	The Corporation of the Village of Burk's Falls.	"	Sale of north west part of lot No. 4, east side of Ontario St., Burk's Falls, Ont.	" public building.		800 00
"	12	Mrs. S. E. Brasher.	"	Sale of westerly part of lot No. 5 east side of Ontario St., Burk's Falls, Ont.	" "		300 00
"	15	Notice of Expropriation.		Expropriated land at Canning, N.S.	" "	49·6 x 50 ft.	
"	19.	Certificate of Title.		Sale of land being south west ¼ Sec. 18, Tp. 51, Range 16, Glaslyn, Sask.	For telegraph office.	1 acre	
"	20	The Commissioners of the Port Hope Harbour.	His Majesty	Sale of part of Port Hope Harbour, Ont.	" revetment wall	15,600 sq. ft.	2 00
"	20.	The Victoria Harbour Lumber Co. Ltd.	"	Sale of part of water lot, 7th Con., Tp. of Tay, Ont.	" wharf	2,135 acres	1 00
"	22.	W. J. Yates.	"	Sale of parcels of land Nos. 1270, 1333, 895 and lot No. 11, 2nd Con., New Liskeard, Ont.	Lake Timiskaming reservoir.	13·8 acres	2,212 00
"	23	Certificate of Title.		Sale of east 80 ft. of lots Nos. 21, 22, 23, 24 and 25, Block 76 of lot No. 411, Group 1, New Westminster, B.C.	Government purpores		

No. 2.—STATEMENT of properties purchased or sold by the Department of Public Works of Canada, from April 1, 1913, to March 31, 1914—*Continued.*

Date of Conveyance.	Vendors	Purchasers.	Description of Property.	For what purpose.	Area.	Price.
1914.						$ cts.
" 26	Wm. Hannah	His Majesty	Sale of lots Nos. 21, 22 and 23, Block 122, Moose Jaw, Sask.	For immigration hall		22,000 00
" 28	Mrs. K. M. King	"	Sale of part of lot No. 53 at Waterville, Que.	Site for public building.	6,500 ft.	1,500 00
" 28	L. C. and F. Manning	"	Sale of land at Chester, N.S.	" "	77 x 100 ft.	2,250 00
" 30	J. P. Kearns	"	Sale of part of lot No. 33, southerly limit of John St., Ottawa, Ont.	" new departmental buildings.		4,070 00
" 30	Ainsworth Land and Improvement Co. Ltd.	"	Sale of parts of south east ¼ Sec. 5 Tp-1, Ainsworth, B.C.	Site for wharf	·129 & ·07 acres.	8,200 00
" 31	Bank of British North America.	"	Sale of lots Nos. 27 and 28, north side of Wellington St., Ottawa, Ont.	" new departmental buildings.		89,133.00 plus interest from 9th March '12.
Feb. 2	R. A. Garland	"	Sale of lots Nos. 24 and 25, Block 24 Sec. 40-Tp. 10, Range 14, Carberry, Man.	Site for public building.		2,000 00
" 3	J. J. Aistrop	"	Sale of part of north ½ of lots Nos. 9 and 10, 6th Con. Tp. of Harris, Temiskaming, Ont.	Lake Timiskaming reservoir.	17·19 acres	545 52
" 3	S. M. Heron	"	Sale of lot No. 17, east side of Armstrong St, New Liskeard, Ont.	" "	0·39 acre	250 00
" 4	Notice of Expropriation.	"	Expropriation of rear parts of lots Nos. 37, 38, 39 and 40, Block 306 at Regina, Sask.	For assistant Receiver General's accommodation.	2,500 sq. ft.	
" 5	His Majesty	Price Brothers & Co. Ltd.	Bill of Sale of Schooner "Sophia" J. Luff.			905 00
" 5	"	Price Brothers & Co. Ltd.	Bill of Sale of Schooner "E. H. Rutherford".			905 00
" 7	The Upper Ottawa Improvement Ltd.	His Majesty	Sale of wharf approach, Quyon, Que.	For Government purposes.		900 00
" 7	Mrs. Edith & W. Eadie.	"	Sale of lot No. 2, New Liskeard, Ont	For Timiskaming reservoir	4,328·12 ft.	550 00
" 9	John Channonhouse	"	Sale of B in Block H, Eganville, Ont.	Site for public building.	½ acre	500 00
" 9	Certificate of Title		Sale of portion of Block D, Swift Current, Sask.	" drill hall	1·72 acre	
" 10	A. O. Lyon, F. Aitkens & M. C. Kendall.	His Majesty	Sale of lot Nos. 41 and 42, Block 9, Osoyoos Division, B.C.	" public building.		11,000 00

Feb. 10	Dept. of Railways & Canals	Dept. of Public Works.	Transfer of bridge, Big Head River, Harbour of Meaford, Ont.	Government purposes		Free Transfer.
" 10	A. O. Lyon	His Majesty	Sale of lot No. 40, block 9, Osoyoos division, B. C.	Site for public building		4,000 00
" 10	City of Prince Rupert	"	Grant of Part of block 14, lot No. 1992, Range 5, Prince Rupert, B. C.	For Government purposes.	2·64 acres	Free Grant.
" 11	W. B. Russell	"	Sale of lots Nos. 16 and 17, east side of May St., New Liskeard, Ont.	Lake Timiskaming Reservoir.	0·20 "	247 00
" 11	Notice of Expropriation		Expropriation of part of lot No. 24, north west corner Main and John Sts., Hamilton, Ont.	For extension to public building.		
" 11	W. J. Hamilton	His Majesty	Sale of lots Nos. 1 and 2, block 15, corner Main St. and 3rd Avenue, Wainwright, Alta.	Site for public building	100 x 130 ft.	3,250 00
" 14	Trustees of Methodist Church.	"	Sale of part of lot 'A' at Huntsville, Ont.	" " "		2,000 00
" 16	C. M. McCool	"	Sale of lots Nos. 37, 38, 39 and 40, east side of Wellington St., New Liskeard, Ont	Lake Timiskaming Reservoir.	17,312 ft	700 00
" 17	Mrs Emily Grier	"	Sale of part of village lot No. 188, Shawville, Que.	Site for public building	45 x 95 ft	1,400 00
" 18	Pierre Lapointe	"	Sale of part of lot No. 69-1, 3rd con., tp. of Guigues, N. Timiskaming, Que.	Quinze River bridge		1,300 00
" 18	J. P. Ranger	"	Sale of parts of lots Nos. 17 and 18, Quinze River, N. Timiskaming, Que.	" "		100 00
" 18	Jean LeBris	"	Sale of land, 4th con, tp of Guigues, N. Timiskaming, Que,	" "	15 60 acres	15 60
" 18	Frank R. Elliott, *et ux*	"	Sale of land at Cottage Cove, N. S.	Site for breakwater	0·11 acres	50 00
" 18	Thomas Breen	"	Sale of land, 2nd con., tp. of Guigues, N. Timiskaming, Que.	Lake Timiskaming Reservoir.	100 acres	100 00
" 20	Dept. of Militia & Defence	Dept. of Public Works.	Grant of land at Gananoque, Ont.	Site for public building		Free Grant.
" 21	Certificate of Title		Sale of lots Nos. 1, 2 and 3, block 170, Saskatoon, Sask.	" " "		
" 27	G. E. Wainman	His Majesty	Sale of part of Village lot No. 188, Shawville, Que.	" " "	7 ft wide x 54 ft 3 in.	100 00
Mar. 3	Jaco Erratt	"	Sale of lots Nos. 1, 2, 3 and 4, block 125, Moose Jaw, Sask.	" customs warehouse		60,000 00
" 3	Cleophas Turcotte	"	Sale of lot No. 129, St. Sauveur, Que.	" postal station	5,336 ft	26,112 00
" 3	J. R. Doucet, *et ux*	"	Sale of land, east side of Harbour at Grand Etang, N. S.	For bridge approach	1,840 ft	24 00
" 3	J. B. Delay	"	Release for damages in re piece of land in 3rd con., tp. of Guigues, North Timiskaming, Que.	Lake Timiskaming Reservoir.		176 00
" 7	F. H. Steel, *et al*	"	Sale of a strip of land, Port Maitland, N. S.	Site for anchorage		1 00
" 9	James Andrew	"	Sale of lot No. 36, Block 15, Oak Lake, Man.	" public building		1,250 00
" 9	J. H. Robblee, *et ux*	"	Sale of land at Lower Granville, N. S.	" " wharf	0·115 acres	25 00

No. 2.—STATEMENT of properties purchased or sold by the Department of Public Works of Canada from April 1, 1913, to March 31, 1914.—*Continued.*

Date of conveyance.	Vendors.	Purchasers.	Description of Property.	For what purpose.	Area.	Price.
1913.						$ cts.
Mar. 9.	J. H. Wyld	His Majesty	Sale of lot No. 43 and westerly portion of lot No. 44, south side of Barton St. Hamilton, Ont.	Site for postal station 'B'.	53 x 93 ft.	12,500 00
" 10	Seigneurie de St. Jean Port Joli.	"	Release for seigneurial rights in connection with wharf at St. Jean Pt. Joli, Que., and a piece of land having	Site for wharf. " "	230 x 94 ft.	2 00
" 10.	John Macdonald, *et ux.*	"	Sale of land on northern side of Public Road at McAras Brook, N. S.	For boat landing.	15,120 ft	100 00
" 10	J. T. Horne & J. A. Graham, *et ux.*	"	Sale of part of lot No. 8, con. D, Island No. 2, Fort William, Ont.	Kaministiquia River improvements.		2,097 57
" 10	W. L. H. Rowand	"	Sale of part of lot No. 5, Con. C, Island No. 2, Fort William, Ont.	Kaministiquia River improvements.		929 34
" 10.	His Majesty	Corp. of Town of Gananoque.	Grant of land at Gananoque, Ont.	Private enterprise.	12 x 60 ft.	Free Grant
" 10.	Moschelle Wharf Co.	His Majesty	Sale of land, and land covered by water at Moschelle, N. S.	For wharf.		500 00
" 16.	R. Oakley & W. H. Laverty	"	Sale of east ½ of lot No 3, con. G, Island No. 1, Fort William, Ont.	Kaministiquia River improvements.	0·93 acres.	2,601 16
" 17	Estate of Late Thos. Dardis	"	Sale of part of west ½ of lot No. 30, 1st con., also part of lot No. 3, block 98, at Morrisburg, Ont.	Site for public building.	15,000 sq. ft.	2,500 00
" 18.	Corporation du College Ste Marie (Montreal), *et al.*	"	Sale of part of lot No. 10, con. D, Island No. 2, Fort William, Ont.	Kaministiquia River improvements.	2·83 acres.	3,134 69
" 19	Notice of Expropriation		Expropriation of land being parts of south west ¼ of sec. 5, tp. 1, Ainsworth, B.C.	For wharf.	·129 and ·07 acres.	
" 19.	F. G. Smith	His Majesty	Sale of 2 small cabins and contents Government Reserve, Yukon River.	For telegraph office and store house.		75 00
" 19	R. D. Irvine	"	Sale of lots Nos. 7 and 8, Sub-division of lot No. 18, Dist. lot No. 463, Group 1, Coquitlam, B. C.	Site for public building.		3,000 00
" 19.	R. Algar, T. C. Algar and K. Algar.	"	Sale of part of lot No. 12, west side of James Street, Parry Sound, Ont.	" " "		1,800 00
" 19.	Canadian Order of Foresters	"	Sale of part of lot No. 11, west side of James Street, Parry Sound, Ont.	" " "		4,000 00
" 20.	B. E. Saulnier, *et al.*	"	Sale of land at Comeau's Cove, N. S.	" " breakwater.	1·62 acres.	1 00

" 20	J. W. Blain	"	Release for damages re cancellation of leases and removal of buildings, at Milton, Ont.			450 00
" 21	P. M. Small	"	Sale of land on the eastern side of Public Road at Woodward's Cove, N. B.	Site for breakwater	0·96 acres.	479 00
" 24	Henry Billinghurst	"	Surrender, etc., in re premises No. 436 Spadina Avenne, Toronto, Ont.	Site for postal station	Spadina & Oxford Sts.	3,750 00
" 24	Certificate of Title	"	Sale of lots Nos. 1 and 2, block 71 at Port Alberni, B. C.	Site for public building		
" 28	National Trust Company, Ltd.	"	Sale of cadastral lot No. 55, Stanstead Plain, Que.	"	"	1,500 00
" 30	Miss M. J. St. Laurent	"	Sale of part of lots Nos. 38 and 39 at St. Onrs, Que.	"	"	1,200 00
" 31	Certificate of Title		Sale of lots Nos. 19 and 20, block 55 at Swift Current, Sask.	"	"	25,000 00

The following items were received too late for insertion in Annual Reports 1911-12 and 1912-13.

No. 2.—STATEMENT of Properties purchased or sold by the Department of Public Works of Canada, from April 1, 1911, to March 31, 1912, and from April 1, 1912, to March 31, 1913 —*Concluded.*

Date of Conveyance.	Vendors.	Purchasers.	Description of Property.	For what purpose.	Area.	Price.
1911.						$ cts.
Aug. 21	The Corporation of the City of Vancouver.	His Majesty	Sale of lots Nos. 48, 49 and 50, block 155, subdivision of lot No. 274, North Vancouver, B.C.	Site for public building		93,650 00
1913.						
Jan. 14	A. Holland *et ux*	"	Sale of part of lot No. 38, north side of Vittoria street, Ottawa, Ont.	Site for new departmental buildings.		7,296 30
" 14	S. U. Jackson	"	Sale of south half of lot No. 36, north side of Vittoria street, Ottawa, Ont.	" "		21,132 52
" 16	W. A. Leggo	"	Sale of part of lot No. 38, north side of Vittoria street, Ottawa, Ont.	" "	44 ft. frontage	15,645 21
" 17	A. C. and J. C. Clark	"	Sale of west half of lot No. 37 and south half of east half of lot No. 37, north side of Vittoria street, Ottawa, Ont.	" "		33,806 38
Feb. 12	V. Hahn *et ux*	"	Sale of lot No. 13, east side of Garrafraxa street, Durham, Ont.	Site for public building		2,400 00
" 15	A. S. Kendall *et ux*	"	Sale of land north side of south bar, Sydney Harbour, N.S.	Site for breakwater.	22½ acres	7,121 70

* The following item was received too late for insertion in 1912-1913 report.

*Mar. 29, 1913.	A. Kearney (wife of W. H. Kelly).	His Majesty	Bill of sale of tug "Maggie K"	Government purposes		7,000 00

STATEMENT No. 3

PROPERTY LEASED

No. 3.—STATEMENT of Properties leased to and from the Department of Public Works of Canada from April 1, 1913, to March 31, 1914.

Date of Lease.	Lessors.	Lessees.	Description of Property.	For what Purpose.	Duration of Lease.	Rental.
1913.						$ cts.
April 4.	Mrs. Julie Gougeon	His Majesty	Lease of 1st floor of building, Centre Ward, Montreal, Que.	Government purposes	1 year	$1,250 per an.
" 8	J. A. Irvine	"	Lease of four rooms, Calgary, Alta.	Irrigation Commissioners.	Monthly tenancy	$125 per m.
" 13	His Majesty	Silica Sand and Gravel company Limited.	Permission to dredge and take away sand from Point Grey English Bay, B.C.	Private enterprise	5 years	5c. per c. yd.
" 14	Allan & Fleming	His Majesty	Lease of additional room in Victoria Chambers, Ottawa, Ont.	Conservation Commission.	1 year	$50 per m.
" 15	W. D. Morris	"	Lease of top floor of building corner Emmett and Lewis sts., Ottawa, Ont.	General Medical Service Militia and Defence.	2 years	$1,500 per an.
" 15	Mrs. Robert Hamilton	"	Lease of ground floor of building No. 249 Hastings st., Vancouver, B.C.	For post office purposes	5 years	For 1st 2 years $265 per m. for last 3 yrs $315 per m.
" 15	F. Y. Newton	"	Lease of 2nd floor of lot No. 6, block 4, Roblin, Man.	For Superviser of Riding Mountain Reserve.	2 years	$27.50 per m.
" 21	Thomas Dionne	"	Lease of one (1) story in building, Cacouna Que.	For post office purposes	3 years	P. Office Dept. $50 per an. Pub. Works. Dept $50 per an.
" 22	The Bank of Toronto	"	Lease of four (4) rooms on 2nd flat of building corner King and Brock sts., Kingston, Ont.	For Government purposes.	2 years	$360 per an. renewable.
" 25	His Majesty	Can. Pac. R'y. Co.	Renewal of lease of portion of Custom House lot, New Westminster, B.C.	For private enterprise	21 years	$1 per an.
" 28	F. W. W. Fane & J. S. Reid.	His Majesty	Lease of 2nd floor of building on lots Nos. 8 and 9, block 4, Vegreville, Alta.	Immigration purposes	6 months	$50 per m.
" 29	City of Montreal	"	Privilege to construct tunnel to connect post office building with post annex, Montreal, Que.	Post office puposes	Once forever	$2,281.
" 29	The Rideau Club	"	Lease of west office on ground floor of building, "Rideau Club", Ottawa, Ont	For Supt. of Rural Mail Delivery.	5 years	$1,800 per an.
May 1	Can. Pac. R'y. Company	"	Lease of portion of Burrard Inlet, adjoining lot No. 185, group 1, Vancouver, B.C.	Immigration Detention Hospital.	21 years	$1 per an. renewable.

"	1.	J. W. Gordon, et al	"	Lease of premises in "Y.M.C.A." building, North Sydney, N.S.	For Government purposes.	Date of expiry, May 1, 1916.	$600 per an.
"	5.	T. E. Bradburn	"	Lease of four (4) rooms over stores 336-338-340 and 342, east side of George st. Peterboro, Ont.	For enstoms	Monthly tenaney	$40 per m.
"	5.	John F. Wyebe	"	Lease of lot No. 9, block A with building thereon at Herbert, Sask.	Immigration purposes	" "	$20 per m.
"	12	Dominion Fish and Fruit Ltd.	"	Lease of ground floor with portion of basement in Dominion building, Quebec Que.	For postal station "B"	5 years	$3,000 per an.
"	14.	J. C. Brennan	"	Lease of rooms in Trafalgar building, Ottawa, Ont.	For Interior, Civil Service Commission, Trade and Commerce and External Affairs.	5 years	$16,000 per an.
"	28.	Allan & Fleming	"	Lease of two (2) rooms, corner Wellington and O'Connor sts., Ottawa, Ont.	For International Fisheries Commission.	1 year	$90 per m.
"	29	The Notre Dame Investment Ltd.	"	Lease of suite No. 705 in Notre Dame Investment Ltd., building, Winnipeg, Man.	For Railway Commission.	1 year	$100 per m.
"	30	A. W. Ormsby	"	Lease of lot No. 23, block 2, River lot No. 10, east side Fraser Ave., Edmonton, Alta.	For Customs Examining warehouse.	3 years	$207 per m.
June	1.	Hudson Bay Company	"	Lease of land in Hudson Bay Co's., Reserve, Athabasca Landing, Alta.	Immigration Hall	(100 x 150 ft.) 5 yrs	$1 per an.
"	4.	F. C. Baker	"	Lease of west ½ of 2nd story of frame building "Baker Building", Prince Albert, Sask.	Interior Department	6 months	$80 per m.
"	7.	The Ottawa Masonic Temple Limited.	"	Lease of ground and 1st floor of "Masonic Temple Building", Ottawa, Ont.	Conservation Commission.	5 years	75c. per sup. foot.
"	10.	Robert E. Powell	"	Lease of rooms Nos 221 and 223, Queen st., Ottawa, Ont.	For Customs	1 year	$900 per an.
"	13.	His Majesty	The Ottawa power Co., Ltd.	Lease of Hydraulic lots U, V, W, X, Y, and Z, Ottawa, Ont.	Private enterprise	21 years	$600 per an. renewable.
"	19	Alfred LaRochelle	His Majesty	Lease of premises 22 x 26 ft. north west side of Notre Dame st., Black Lake, Que.	Post Office	1 year	$300 per an.
"	21.	Northern British Columbia Development Company.	"	Lease of ground floor and rooms Nos. 1, 2, 3, 4, 5, 6, 7, 8 and 9 on front floor of "Federal Block", Prince Rupert, B.C.	For Post Office, Customs, Public Works, Inland Revenue Departments.	3 years	$500 per m.
"	30.	Bank of Nova Scotia	"	Lease of rooms Nos. 1 and 2, 2nd floor of bank building, Windsor, N.S.	Immigration purposes	1 year	$225 per an.
"	30	The City of Vancouver	"	Permission to construct cavity under sidewalk, Vancouver, B.C.	New examining warehouse	During pleasure	$5.35 per an.
July	1.	Belmont Buildings Ltd	"	Lease of rooms Nos. 505, 506 and 507 5th floor of building, corner of Government, Humboldt and Gordon sts., Victoria, B.C.	For district engineer	3 years	$110 per m.
"	11	The Can. Pac. Railway Company.	"	Lease of room in Dom. Express Co's. building at Winnipeg, Man.	Postal station "A"	4 years	$2,992.66 per an.

No. 3.—STATEMENT of Properties leased to and from the Department of Public Works of Canada from April 1, 1913, to March 31, 1914—*Continued.*

Date of Lease.	Lessors.	Lessees.	Description of Property.	For what Purpose.	Duration of Lease.	Rental.
1913.						
July 11	B. E. Rothwell	His Majesty	Lease of room on lot No. 18, block 7, Swan River, Man.	Immigration purposes	1 year.	$15 per an.
" 11	C. W Cooper	"	Lease of portion of building corner Portage Avenue, and Aubrey st., Winnipeg Man.	Postal station "D"	12 months and 9 d.	$1,845 per an.
" 12	Telesphore Michaud	"	Lease of 1st story of building corner Michaud and St. Pierre sts. at St. Gabriel de Brandon, Que.	Post Office	3 years	$248 per m.
" 15	J. B. Turcotte	"	Lease of premises at St. Jean de Matha, Que.	Post Office	3 years	$44 per an.
" 15	The Kamloops Building Syndicate.	"	Lease of four (4) rooms, corner 4th Ave. and Seymour st., Kamloops, B.C.	Forestry Branch, Interior	2 years	$112 per m.
" 17	Quebec Bank	"	Lease of five (5) rooms in building on Wellington st., Ottawa, Ont.	Railways and Canals	1 year.	$1,200 per an.
" 21	Frank Jarman	"	Lease of first 2 flats and basements Civic Nos. 326 and 328 Queen st., Ottawa, Ont.	Patent's Br. Agriculture	3 years	$130 per m.
" 23	P. Lyall & Sons, Cons. C. Ltd.	"	Lease of portion of ground adjoining shops at National Bridge Co., Longue Pointe, Que.	Storing materials	During pleasure	$1 for whole period.
" 30	Thomas C. Rice	"	Lease of building at Weymouth, N.S.	Post office	1 year.	P. W. D., $100 per an. Post master $100 per an.
Aug. 1	Sir Redmond P. Roblin	His Majesty	Lease of premises No. 103 Osborne st., Winnipeg, Man.	Postal Station "C"	1 year	$1,500 per an.
" 1	Grand Trunk R'y. Co. of Canada.	"	Lease of lots Nos 3, 4, 5 and part of lot No. 6 and lots Nos. 13 and 15, Windsor, Ont.	Landing Dock	20 years and 6 mos.	$1,200 per an.
" 7	J. T. Emmerson	"	Lease of room No. 9 on 2nd floor of building and lot No. 2, east Cumberland st., Port Arthur, Ont.	Immigration purposes	1 year	$30 per m.
" 13	His Majesty	Benson C. Beach.	Privilege of using surplus water of Montreal River, Latchford, Ont.	Private enterprise	From completion of dam until 5th April, 1929.	$750 per an. & $1.50 p. h. p. over 500 h. p. (Renewable)

" 15	Wm. McFarlane	His Majesty	Lease of ground floor and basement on lots No. 22, 23 and 24, Block 22, Transcona, Man.	Post Office	5 years	His Majesty $650 per an. Postmaster $250 per an.
" 25	J. O. Giroux	"	Lease of room on lot No. 1. Block "C", Grouard, Alta.	Immigration purposes	1 year	$40 per m.
" 28	Belmont Buildings, Ltd.	"	Lease of room No. 504, 5th floor of building, cor. Government, Humboldt and Gordon sts., Victoria, B. C.	District Engineer	3 years	$40 per m.
Sept. 1	Dorchester Realties, Ltd	"	Lease of ½ of 8th floor, Shaughnessy building, Montreal, Que.	Marine and Fisheries	5 years & 8 months	$1. per sup. ft.
" 1	L. Foster	"	Lease of room No. 4, lot 12, Block 14, Main st., Medicine Hat, Alta.	Immigration purposes	12 months	$25 per m.
" 13	J. A. Graham and J. T. Horne.	"	Lease of room No. 28 in "Graham Horne building", Fort William, Ont.	Immigration purposes	1 year	$17.40 per m.
15	His Majesty	Thos. Francis McLaughlin.	Lease of Delisle Property at Limoilou, St. Charles River, Que.	Private enterprise	1 year	$50 per an.
" 16	Herman Pitts	His Majesty	Lease of part of "Pitt's Building", Fredericton, N.B.	Resident Eng. Staff	2 years	$400 per an.
" 16	Beardmore & Company	"	Lease of room No, 20, 1st floor of "Beardmore Building", Montreal, Que.	Supervising Eng. Dept. of Public Works.	1 year	$800 per an.
Oct. 1	Pheasey & Batson	"	Lease of two (2) stores on ground floor and space in basement in "Alexandra Block", Edmonton, Alta.	Dom. Lands Office	5 years	$550 per m.
3	His Majesty	Jane Hutchison	Lease of building at foot of East st., Sault Ste. Marie, Ont.	Private enterprise	Monthly tenancy	$5 per m.
5	C. J. Swales	His Majesty	Lease of ground floor and cellar accommodation, south west cor. of Kinrade ave. and Barton st., Hamilton, Ont.	Postal Station "B".	3 years	$1,200 p. an.
8	R. A. McCready	"	Lease of part of Warehouse, corner of Sutherland and Gladstone sts., Winnipeg, Man.	Interior Department	4 months	$50 per m.
10	Kathleen Levasseur	"	Lease of lower story of building, west ½ of lot No. 2, Pincher Creek, Alta.	Supervisor of Crow's Nest Reserve.	6 months	$30 per m.
18	E. M. Reid	"	Lease of building at Macklin, Sask.	Immigration purposes	6 months	$25 per m.
22	C. O'Connor and H. M. Sibbard.	"	Lease of three (3) offices, 1st floor of building, corner Central ave and 11th Street East, Prince Albert, Sask.	North Saskatchewan River Survey.	1 year	$75 per m.
22	The Industrial Trust Co., Ltd.	"	Lease of rooms Nos. 6, 7, 8 and 9 in lower story, "Quebec Bank Building", Montreal, Que.	Archives	From 21 Oct. '13 to 1st May, 1915	$1,000 per an.
24	Wilson Bros	"	Lease of premises north west corner 3rd Avenue and 22nd Street, Saskatoon, Sask.	Dominion Lands Office	2 years	$300 per m. renewable.
28	Sir H. N. Bate Realty Corporation, Limited.	"	Lease of Apartment No. 5, "Aylmer Annex", Ottawa, Ont.	Militia and Defence	1 year	$630 per an.
30	C. Blatch (Curatrix to A. Dalbec.)	"	Lease of north west part of lot No. 101 St. Catherine st. east, Montreal, Que.	Postal Station "N"	2 yrs & 10 months	$1,800 per an.
Nov. 1	The Imperial Trust Co	"	Lease of suite No. 212 in Canada Building, Saskatoon, Sask.	Inland Revenue	1 year	$600 per an,

No. 3.—STATEMENT of Properties leased to and from the Department of Public Works of Canada from April 1, 1913 to March 31, 1914.—*Continued.*

Date of Lease.	Lessors.	Lessees.	Description of Property.	For what Purpose.	Duration of Lease.	Rental.
1913.						
Nov. 3	A. E. Scott	His Majesty	Lease of two (2) rooms, 3rd floor of building on Mountain Hill st., Quebec, Que.	District Engineer, Dept. of Public Works.	4 yrs & 11 months.	$325 per an.
" 8	Canadian Pacific Ry. Co	"	Permission to construct and maintain a gate in fence of Station Ground at Nominingue, Que.	Private enterprises.	During pleasure	$8 first year and $1 for each subsequent year.
" 13	M. C. Green	"	Lease of frame building on lots Nos. 15 and 16, Rocky Mountain House, Alta.	Interior Dept	1 year	$25 per m.
" 22	R. L. & R. Blackburn	"	Lease of part of 2nd and 3rd floor and the whole of 4, 5, 6, 7, 8 and 9th eastern section of building facing Sparks st., Ottawa, Ont.	Several Departments of the Federal Government.	5 years	$28,986 per an.
" 24	W. M. J. H. & G. W. Birks.	"	Lease of rooms Nos. 614, 615, 616, 617, 618 on 6th floor of Birks Building, Vancouver, B.C.	Superintendent of Dredges	1 year	$1,620 per an.
Dec. 2	Wm. McConnell	"	Lease of premises, north east corner of Prince st. and Grand Trunk ave., Lansdowne, Ont.	Post Office	5 years	P. W'k's Dep. $50 per an. Postmaster $100 p. an.
" 6	Le Conseil Mun. du Village de St. Eustache, Que.	"	Lease of part of 1st story of City Hall at St. Eustache, Que.	Post Office	5 years	$300 per an.
" 8	Dr. James Walker	"	Lease of premises Nos. 245, 247 and 249 Hollis st., Halifax, N.S.	Customs Express and Warehouse.	From 1st Aug. '13 to 30th April, '17	$1,200 per an.
" 9	The Canadian Bank of Commerce.	"	Lease of rooms Nos. 2 and 3, Revelstoke, B.C.	Chief Ranger (Interior Department.)	1 year	$50 per m.
" 10	The Alexander Building, Ltd.	"	Lease of ground and 1st floor of "Read Building", Montreal, Que.	Custom Express Service	2 years & 6 months	$25,000 per an. (renewable).
" 12	John H. Bunnell	"	Lease of five (5) rooms in "Bunnell Block", Moose Jaw, Sask.	Lands Office.	1 year	$175 per m.
" 17	Confederation Life Association.	"	Lease of offices Nos. 334, 335, 611-2, 613-4, Vault No. 7, Confederation Life Chambers, Toronto, Ont.	District Engineer Dept. of Public Works.	3 years	$2,500 per an.
" 17	N. Bawlf.	"	Lease of office on 3rd floor and storeroom on 2nd floor, "Chamber of Commerce Building", Winnipeg, Man.	Hydrographic Survey Staff.	5 years	$225 per m

"	18	McDougall Iron Works, Ltd.	"	Lease of space in boiler shop at Montreal, Que.	Storing boilers for Examining Warehouse.	6 months	$1 whole period.
"	19	Dorchester Realties, Ltd.	"	Lease of parts of 5th and 9th floors in "Shaughnessy Building", Montreal, Que.	Public Works and Marine and Fisheries.	5 years & 6 months	$1 per foot.
"	22	Mrs. M. A. Dauphine	"	Lease of two (2) rooms No. 33A, Manseau st., Joliette, Que.	Assistant Post Office Inspector.	1 year	$264 per an.
"	22	The Journal Printing Co., Ltd.	"	Lease of 2nd, 3rd, 4th and 5th floors of building, Queen st., Ottawa, Ont.	For Interior, Pub. Works & Aud. Gen. Dept.	5 years	70c. p. sup. ft.
"	24	The Bank of Hamilton	"	Lease of room No. 9, 2nd floor of building, Port Arthur, Ont.	Immigration purposes	1 year	$30 per month.
"	31	Edward H. Cuthbertson	"	Lease of room No. 214, "Cuthbertson Block," Fort William, Ont.	Inland Revenue, Gas and Electrical Branch	1 year	$216 per an.
1914. Jan.	1	J. O. Patterson	"	Lease of parts of building on lots Nos. 31 & 32, block 4, Grande Prairie, Alta.	Immigration purposes	1 year	$65 per m.
"	3	E. A. Potter	"	Lease of premises, 445 Queens Ave, Edmonton, Alta.	Weights and Measures	1 year	$420 per m.
"	3	H. T. W. Forster	"	Lease of frame building, 407 Main st., Medicine Hat, Alta.	Customs	1 year	$75 per m.
"	5	Grand Trunk Railway Co. of Canada.	"	Lease of room in G.T.R. station, at Berlin, Ont.	Postal purposes	From year to year.	$50 per an.
"	8	R. A. McCready	"	Lease of 25 x 100 feet of warehouse cor. Sutherland and Gladstone sts, Winnipeg, Man.	Immigration purposes	3 months	$50 per m.
"	20	Chester Thompson	"	Lease of ground floor of building near corner of 23rd st. and 2nd Ave, Saskatoon, Sask.	Customs department	1 year	$500 per m.
"	20	Cater-Halls-Aldinger Co.	"	Lease of ground adjoining shops at Tyndall, Man.	Storing materials	During pleasure.	$1 whole period
"	22	The Geo. J. Foy Co. Ltd.	"	Lease of 5 offices on 2nd floor of building 32, Front st., west Toronto, Ont.	Steamboat Inspectors	1 year	$1,300 per an.
"	24	Quebec Central Railway Co.	"	Lease of offices in Company's building at Sherbrooke, Que.	District Engineer Staff	3 years	$1,400 per an.
"	26	Thomas Fleming	"	Lease of brick building, 347 Sparks st., Ottawa, Ont.	Militia stores	2 years	$1,080 per an.
"	28	T. E. Boudreau	"	Lease of room on 1st floor of building, Fairy st., Edmundson, N.B.	Immigration Inspector	1 year	$10 per m.
"	29	J. S. Bergeron	"	Lease of offices, 103 St. John st., Quebec, Que.	Public Works Department	1 year	$350.
"	30	D. & A. Printing & Engraving Co. Ltd.	"	Lease of portion of building, on lots Nos. 11 and 12, block 6, Medicine Hat, Alta.	Gas Inspector	1 year	$30 per m.
"	31	Dennis Realty Corporation	"	Lease of 6th floor of "Dennis Building," Halifax, N. S.	Militia and Defence	5 years	$3,112 per an.
Feb.	1	Beardmore & Co	"	Lease of room No. 20, 1st floor of "Beardmore Building," Montreal, Que.	Supervising Eng. Dept. of Public Works.	2 years	$800 per an.
"	1	Imperial Bank	"	Lease of ground floor of premises on Thames st., Ingersoll, Ont.	Post Office Department	8 months	$75 per m.
"	2	Canadian Bank of Commerce.	"	Lease of rooms Nos. 1, 4 and 5 on 2nd floor of Bank of "Commerce building," Revelstoke, B.C.	Public Works Department	1 year	$75 per m.

No. 3.—STATEMENT of Properties leased to and from the Department of Public Works of Canada from April 1, 1913, to March 31, 1914—*Concluded.*

Date of Lease.	Lessors.	Lessees.	Description of Property.	For what Purpose.	Duration of Lease.	Rental.
1914.						
Fe 6	Estate of Simeon Delorme.	His Majesty	Lease of building, Nos. 272-274, St. Paul st., Montreal, Que.	Militia and Defence	3 years	$3,000 per an.
" 7	Sir H. N. Bate Realty Corporation Ltd.	"	Lease of apartment No. 7, "Aylmer Annex" Ottawa, Ont.	Royal Engineers	17 months	$30 per m.
" 20	C. B. Munro	"	Lease of lots Nos. 16 and 17 and easterly 10 feet of lot No. 15, block 30, Sec. 16, Calgary, Alta.	Storage purposes	1 year	$45 per m.
" 28	The Can. Pac. Railway Co.	"	Lease of room in Dom. Express Co., Winnipeg, Man.	Postal Station "A."	3 years	$2,992.66 p. an
" 28	Estate of Chris. Moore	"	Lease of easterly store of "Grand Central Hotel Building," Orillia, Ont.	Customs Department	8 months	$35 per m.
Mar. 2	J. P. Lorrain	"	Lease of premises No. 95, George st., Ottawa, Ont.	Stationery offices	2 years	1st year $1,000 2nd yr. $1,200
" 2	J. B. Hance	"	Lease of premises No. 19, Simcoe st., Toronto, Ont.	Immigration purposes	From date of occupation to 1st April, 1916.	$127.50 per m.
" 6	Quebec Bank Ltd	"	Lease of five (5) rooms in "Quebec Bank Building," Wellington st., Ottawa, Ont.	Railways and Canals	1 year	$1,200 per an.
" 9	J. O. Giroux	"	Lease of room in building, Grouard, Alta.	Immigration	1 year	$40 per m.
" 10	Allan & Fleming	"	Lease of two (2) rooms and two (2) vaults, Victoria Chambers, Ottawa, Ont.	International Fisheries Commission.	1 year	$90 per m
" 10	Knights of Columbus Council No. 1001.	"	Lease of 1st floor of building, cor. Notre Dame and St. Antoine sts., Three Rivers, Que.	Post Office Inspector	5 years	$420 per an.
" 12	Village of Entwistle.	"	Lease of lots Nos. 20, 21 and 22, block 4, Entwistle, Alta.	Immigration Building	5 years	$3 per an.
" 12	J. B. Rothwell	"	Lease of south west cor. room in building on lot No. 18, block 7, Swan river, Man.	Immigration purposes	1 year	$15 per m.
" 14	A. McMillan and W. Costain.	"	Lease of ground floor of building on lots Nos. 5 and 6, block 7 and part of basement at Toronto east, Ont.	Postal Station "H."	5 years	$75 per m.
" 20	L. C. Parsons	"	Lease of 1st floor of building facing railway depot, Maple Creek, Sask.	Lands Office	5 years	$1,200 per an.

" 21	City Council of City of Moose Jaw, Sask.	"	Lease of lots Nos. 27, 28, block 127, Moose Jaw, Sask	Immigration	1 year	$100 per m.
" 24	School District of Virden	"	Lease of School Building, Virden, Man.	"	1 year	$250 per an.
" 26	H. H. Baxton	"	Lease of premises on lot Nos. 8, 9 and 10, block 7, Deloraine, Man	"	1 year	$400 per an.

The following item was received too late for insertion in 1912-1913 report.

1913.						
Mar. 25	Mackenzie, Mann & Co. Ltd.	His Majesty	Lease of lots Nos. 5 and 6, block 23, Wadena Sask.	Government purposes	For 5 years.	$1 per an.

DEPARTMENT OF PUBLIC WORKS,

OTTAWA, August 1, 1913.

J. A. CHASSE,

Law Clerk.

LIST

.. OF SOME OF THE

ACTS OF PARLIAMENT

PASSED AT THE SESSION OF 1914

HAVING REFERENCE TO THE

DEPARTMENT OF PUBLIC WORKS, OR WORKS UNDER ITS CHARGE.

LIST OF SOME OF THE PUBLIC ACTS of the Parliament of the Dominion of Canada, passed at the Third Session of the Twelfth Parliament, begun and holden at Ottawa, on the Fifteenth day of January, 1914, and closed by Prorogation on the Twelfth day of June, 1914, and having reference to the Public Works Department or works under its charge (4-5 George V).

Subject.	Full Title of the Statute.	Chapter	Page in Statute Book.
Sums granted to His Majesty for the financial years ending respectively the 31st day of March, 1914, and the 31st day of March, 1915, and the purpose for which they are granted.	An Act for granting to His Majesty certain sums of money for the public service of the financial years ending respectively the 31st March, 1914, and the 31st March, 1915.	1	3-5-45 Schedules A, B, C.
Amendment to Dry Dock Subsidies Act, 1910.	An Act to amend the Dry Dock Subsidies Act, 1914.	29	191

J. A. CHASSE,

Law Clerk.

NATIONAL ART GALLERY

REPORT

FOR THE FISCAL YEAR ENDED MARCH 31, 1914

THE NATIONAL GALLERY OF CANADA,

OFFICE OF THE DIRECTOR,

OTTAWA, June 4, 1914.

The National Gallery of Canada, during the past year, has created several new and valuable avenues for the improvement and encouragement of artistic taste and appreciation in this country.

First, and perhaps of greatest importance, the National Gallery has been thrown open to the public on Sunday afternoons, during the winter months, from 2 to 5 p.m. In conjunction therefore with the Victoria Museum, the Gallery is the first Government institution, and we believe the first public institution of any kind in this country, to take this important step for the benefit of the people at large. That the innovation has been a success can be seen from the following table of attendance and comparative averages taken both before and after the Sunday afternoon opening was first instituted on December 7, 1913:—

December 7 (first Sunday)	769
December 15	1,450
December 29	1,229
January 24	1,100
Six Sundays, January 11 to February 15 (No turnstile used)	7,374
February 22	1,170
March 1	1,510
March 15	1,000
March 29	1,264
April 5	1,283
Easter Sunday	1,059
Average attendance per week before the Sunday opening of the Gallery	618
Average attendance per week since the Sunday opening	1,939

The National Gallery has been visited by people of all classes and its collections are rapidly increasing in number and importance.

Many valuable and beautiful works of art of various kinds have been acquired during the past year and the Gallery is rapidly gaining an enviable reputation as the possessor of a well-chosen collection of works of art which no one desirous of studying that subject, or of seeking to acquaint himself with an important section of the Government's work for the country, can afford to overlook.

An important addition to the exhibits has been the opening of a gallery containing the best coloured reproductions of the world's most famous pictures. This gallery, which has been eagerly visited, will be added to from time to time as the new prints are published, and it is proving to be a valuable help to those students of art who may be unable to see the original pictures by giving them a reliable reproduction of both form and colour.

It is gratifying and inspiring to notice that art in Canada is developing strong characteristics of its own. In the endeavour to encourage and foster it the Trustees of the National Gallery recently conferred with a committee of the Royal Canadian Academy and came to the conclusion that the best form of encouragement the National Gallery could give to the artists of Canada is the purchase of as many of their meritorious works as possible. That the best means of advertising the quality of the

work of Canadian artists, and at the same time of encouraging the purchase of such work by private individuals and the formation of public art bodies and societies throughout the Dominion is by the loan, for a stated period, of possessions of the National Gallery to any art body or society which has the proper facility for keeping them on public exhibition. That, in addition to this, the National Gallery should institute an annual travelling scholarship of one thousand dollars to be awarded to the most promising art student of the year, and to be expended in the pursuit of his studies in the most famous art centres in Europe. There is much to hope from these conclusions. They would enable a far larger number of Canadian pictures to be bought than could ever be exhibited in the National Gallery at Ottawa, a gallery already full to overflowing, and the purchases would stimulate an interest in art in any town in this country anxious to progress and, perhaps, lacking the facilities for purchase. The scholarship, the details of which are to be prepared by the Committee of the Royal Canadian Academy for the Trustees of the National Gallery and which will be awarded by the Committee of the Royal Canadian Academy subject to the trustees' approval, should do much to help the successful art student to obtain that final study of the work of both the old and the modern masters which is of such vital importance to his art.

A further effort by the trustees to increase the value of the National Gallery throughout the Dominion is the publication of reproductions of the pictures in the National Galleries. These reproductions, some on post cards in an inexpensive form, and some larger and from the finest photogravure process available, will be sold as cheaply as possible in the stores throughout the country, and will give those who are unable to visit the capital a knowledge of its possessions and will at the same time give them a picture, in itself, a decoration of no mean value.

The general attendance figures from May, 1913, to May, 1914, in total and by the month, are as follows:—

May	1,925
June	2,947
July	3,136
August	4,568
September	5,536
October	3,598
November	2,455
December	5,764
January	9,812
February	7,799
March	8,020
April	7,792
Total for year	63,352

It will be seen that, apart from the Sunday afternoon opening begun in December, the attendance was, up to that time, showing a steady monthly increase.

During the year, the Trustees of the National Gallery have, according to section 5 of the Act to incorporate the National Gallery of Canada, made by-laws: (*a*) For the conduct and management of its business; (*b*) for the carrying out of the purpose of this Act; (*c*) for the protection of its property and the property in its care or charge. These by-laws have received the approval of the Minister.

SESSIONAL PAPER No. 19

During the past year, the Trustees of the National Gallery have met formally on two occasions, and several times otherwise, and the following purchases of pictures, drawings, bronzes, and other works of art have been made:—

Oil paintings—

W. de Zwart.. .. .. The Railway Station.
Alfred Mickle.. .. .. Tower and Mill Pond, Swanage.
J. C. Franchère, A.R.C.A... .. .. .. Le fin de jour.
Robt. Harris, R.C.A.. .. .. Portrait of the Artist.
Chas. Simpson, A.R.C.A.. .. .. Boat and Nets.
L. J. Skelton.. .. .. The Storm Cloud.
Bart. de Bruyn.. .. .. Two portraits.
Chinese Painting.. .. .. Yuan Period.
French Primitive.. .. .. Christ Carrying the Cross.
Maurice Cullen, R.C.A.. .. .. Ice Harvest.
A. Y. Jackson.. .. .. Sand Dunes at Cucq.
F. Brangwyn, A.R.A.. .. .. Charity.
T. Austen Brown.. .. .. Wayside Pasture.
D. Y. Cameron, A.R.A.. .. .. October.
J. Buxton Knight.. .. .. The Pier Sunset.
W. Orpen, A.R.A.. .. .. The Reflection.
" .. .. Mary.
Chas. Furse, A.R.A.. .. .. The Lilac Gown.
David Muirhead.. .. .. The Dark Night.
" .. .. The Woodland Pool.
George Henry, A.R.A.. .. .. The Connoisseur.
Glyn, W. Philpot.. .. .. The Morning Prayer.
Gerald Festus Kelly.. .. .. The Little Burmese Girl.
Henry Sandham, R.A.C.. .. .. St. Marks.
A. Swynnerton... .. .. The Unrelenting Past.
Louis Mettling.. .. .. The Peasant.
Arnesby Brown, A.R.A.. .. .. In Suffolk.
Franklin Brownell, R.A.C.. .. .. .. St. Thomas Harbour, West Indies.
Gerald Festus Kelly.. .. .. Mentone from Cap Martin.
Fanny Plimsoll... .. .. Solitude.

Water colours—

Henry Sandham, R.C.A.. .. .. Roof Tops, Azores.
" .. .. Rainy Day, St. Michaels.
Edmund Dulac.. .. .. The Three Princesses.

Drawings, Etchings, Engravings, Etc.—

Purchases from R. Gutekunst, London, England... .. .. 106 Examples of both old and modern Masters.
W. Giles.. .. .. Swan and Cygnets (colour print).
Muirhead Bone... .. .. Gravesend Church.
" .. .. Kensington.
" .. .. Chiswick Wharf.
" .. .. Chiswick Boats.
W. Strang, A.R.A.. .. .. Study.
" .. .. "
" .. .. "
" .. .. "
" .. .. "
" .. .. "
" .. .. Portrait.
" .. .. Portrait, J. B. Clark, Esq.
Sir J. C. Robinson.. .. .. New Manor.
" .. .. Poole Harbour.
" .. .. Corfe Castle.
" .. .. Beja in Portugal.
" .. .. October Rain.
Chas. Shannon, A.R.A.. .. .. Biondina
" .. .. Sea and Breeze.
" .. .. Linen Bleachers.
" .. .. Salt Water.
" .. .. Alphonse Legros.
" .. .. Max Georbohm.
" .. .. Sea Folk.
" .. .. The Woodnymph.
" .. .. The Sea Coast.
" .. .. The Morning Toilet.
" .. .. The Incoming Tide.

Drawings, Etchings, Engravings, Etc.—Con.

J. M. Swan, R.A. . . . . Head of Lioness.
" . . . . . Study of a Young Girl.
" . . . . . Jaguar Eating
" . . . . . Siberian Tiger.
" . . . . . Jaguar.
" . . . . . Head of a Leopardess.
" . . . . . Polar Bear.
" . . . . . Tiger.
" . . . . . Tiger.
D. Y. Cameron, A.R.A. . . . . The Five Sisters of York.
J. M. Barnsley . . . . . Two Sketch Books.
" . . . . . I Sketch.
J. Kerr Lawson . . . . . Il Tempio a la Fontana.
" . . . . . San Lorenzo
" . . . . . San Giorgio.
" . . . . . Il Colleone.
" . . . . . L'Obellisco.
" . . . . . Bel San Giovanni.
" . . . . . Randazzo.
" . . . . . Il Ponte.
" . . . . . San Firenze.
" . . . . . San Geronimo.
" . . . . . Mrs. Wood.
" . . . . . Shopping in Morocco.
" . . . . . The Fondell, Morocco.
" . . . . . Joseph Pennell, Esq.
" . . . . . Wm. De Morgan, Esq.
" . . . . . St. Martin's Church.
Anders Zorn . . . . . Portrait of the Artist.
" . . . . . Demoiselle d'Honneur.
" . . . . . Skeri-Kulla.
" . . . . . The Bathers.
" . . . . . A. Rodin.
H. Ivan Neilson . . . . . The Deepening of the St. Charles River, Quebec.
" . . . . . The Old Wood Bridge.
" . . . . . Rivière-au-pui, Quebec.
" . . . . . The Ramparts, Quebec.
" . . . . . Louise Basin, Quebec.
" . . . . . Montcalm's Headquarters.
" . . . . . The Harbour, Quebec.
" . . . . . In Harbour, Quebec.
" . . . . . Montcalm's Headquarters, with Calash.

Bronzes—

S. Borglum . . . . . Washington.
Vernon March . . . . . Pan and Psyche.
" . . . . . Silenus and Satyr.
" . . . . . Paddlers.
Sydney March . . . . . Mercury.
" . . . . . Cupid Carving a Bow (Silver).
Elsie March . . . . . Eternal Play of Night and Day.

B. E. WALKER,

Chairman.

FRANCIS J. SHEPHERD,

Trustee.

ERIC BROWN,

Director.

NAMES OF THE CHIEF OFFICERS

OF THE

DEPARTMENT OF PUBLIC WORKS

WITH

DATES OF APPOINTMENT, ETC., FROM 1841 TO 1914.

THE NAMES AND DATES of the appointments, etc., of the principal Officials of the Department of Public Works, from 1841 to 1914.

Names.	Capacity or Office.	Date of Appointment. Served. From.	To
Under Statute 4-5 Vic., Chap 38.			
CORPORATION BOARD OF WORKS.			
Killaly, Hon. H. H.	Chairman		
Daly, Hon. D.	Members	Dec. 29, 1841	Oct. 3, 1844
Harrison, S. B.			
Sullivan, R. B.			
Davidson J., Esq.			
Begley, Thomas A.	Secretary	Aug. 17, 1841	
Keefer, Samuel	Chief Engineer	Aug. 17, 1841	
Rubidge, F. B.	Architect and Asst. Chief Engineer	Dec. 15, 1841	
NEW BOARD OF WORKS.			
Killaly, Hon. H. H.	Chairman		
Daly, Hon. D.	Members	Oct. 4, 1844	June 8, 1846
Draper, Hon. W. H.			
Morris, Hon. W.			
Papineau, Hon. D. B.			
Under Statute 9th Vic., Cap. 37, etc.			
Robinson, Hon. W. B.	Chief Commissioner	June 12, 1846	Mar. 10, 1848
Tache, Hon. E. P.	" "	Mar. 11, 1848	Nov. 26, 1849
Chabot, Hon. J.	" "	Dec. 13, 1849	Mar. 31, 1850
Merritt, Hon. W. H.	" "	April 8, 1850	Feb. 11, 1851
Bourret, Hon. J.	" "	Feb. 12, 1851	Oct. 27, 1851
Young, Hon. John	" "	Oct. 28, 1851	Sept. 22, 1852
Chabot, Hon. J.	" "	Sept. 23, 1852	Jan. 26, 1855
Lemieux, Hon. F.	" "	Jan. 27, 1855	Nov. 25, 1857
Alleyn, Hon. C.	" "	Nov. 26, 1857	Aug. 1, 1858
Holton, Hon. L. H.	" "	Aug. 6, 1858	Aug. 6, 1858
Sicotte, Hon. L. V.	" "	Aug. 7, 1858	Jan. 10, 1859
Rose, Hon. John	" "	Jan. 11, 1859	June 12, 1861
Cauchon, Hon. Joseph	Commissioner	June 13, 1861	May 23, 1862
Tessier, Hon. U. J.	"	May 24, 1862	May 27, 1863
Drummond, Hon. L. T.	"	May 28, 1863	July 23, 1863
Lafranboise, Hon. M.	"	July 24, 1863	Mar. 29, 1864
Chapais, J. C.	"	Mar. 30, 1864	June 30, 1867
Casgrain, Hon. Charles Eus.	Second Commissioner	July 9, 1846	Feb. 29, 1848
Cameron, Hon. M.	Assistant Commissioner	Mar. 11, 1848	Feb. 1, 1850
Wettenhall, James, Esq.	" "	Feb. 2, 1850	April 16, 1850
Bourret, Hon. Joseph	" "	April 17, 1850	Feb. 11, 1851
Killaly, Hon. H. H.	" "	Feb. 12, 1851	May 6, 1859
Keefer, Samuel	Deputy Commissioner	May 6, 1859	Mar. 7, 1864
Trudeau, Toussaint	" "	Mar. 8, 1864	May 29, 1868
Begley, Thomas A.	Secretary	Feb. 10, 1841	Oct. 31, 1857
Trudeau, Toussaint	"	Dec. 13, 1859	Mar. 7, 1864
Braun, Frederick	"	Mar. 8, 1864	July 1, 1867
Page, John	Chief Engineer	Oct. 31, 1873	Oct. 1, 1879

THE NAMES AND DATES of the appointments, etc., of the principal Officials of the Department of Public Works, from 1841 to 1914.—*Concluded.*

Names.	Capacity or Office.	Date of Appointment. Served. From		To	
Under Statute 31 Vic., Cap. 12.					
McDougall, Hon. Wm.	Minister	July	1, 1867	Dec.	7, 1869
Langevin, C. B., Hon. Hector L.	"	Dec.	8, 1869	Nov.	6, 1873
Mackenzie, Hon. Alexander	"	Nov.	17, 1873	Oct.	16, 1878
Tupper, C.B., K.C.M.G., Sir Charles.	"	Oct.	17, 1878	May	19, 1879
Langevin, C.B., K.C.M.G., Sir Hector L.	"	May	20, 1879	Aug.	11, 1891
Smith, Hon. Frank	Acting Minister.	Aug.	14, 1891	Jan.	10, 1892
Ouimet, Hon. Joseph Alderic.	Minister	Jan.	11, 1892	April	30, 1896
Desjardins, Hon. Alphonse	"	May	1, 1896	July	12, 1896
Tarte, Hon. J. Israel	"	July	13, 1896	Oct.	21, 1902
Sutherland, Hon. James	"	Nov.	11, 1902	May	3, 1905
Hyman, Hon. Charles S.	"	May	22, 1905	Aug.	29, 1907
Pugsley, Hon. Wm.	"	Aug	30, 1907	Oct.	12, 1911
Monk, Hon. F. D.	"	Oct.	12, 1911	"	22, 1912
Rogers, Hon. Robert	"	"	29, 1912		
Trudeau, Toussaint.	Deputy Minister	May	29, 1868	Oct.	1, 1879
Baillargé, G. F.	"	Oct.	4, 1879	Dec.	31, 1890
Gobeil, A., I.S.O.	"	Jan.	1, 1891	June	2, 1908
Hunter, James B.	"	July	1, 1908		
St. Laurent, Arthur	Assistant Deputy Minister.	"	1, 1908		
Braun, Frederick	Secretary	"	1, 1867	Sept.	30, 1879
Chapleau, S.	"	Oct.	1, 1879	Nov.	4, 1880
Ennis, F. H.	"	Nov.	5, 1880	Jan.	13, 1885
Gobeil, A.	"	Jan.	23, 1885	Dec.	31, 1890
Roy, E. F. E.	"	"	1, 1891	"	31, 1900
Gelinas, Fred	"	June	8, 1901	July	2, 1908
Tessier, Napoleon	"	Aug.	11, 1908	June	2, 1910
Desrochers, Rodolphe Charles.	"	July	1, 1910		
McPherson, D. A.	Assistant Secretary.	Jan.	18, 1891	April	11, 1893
Desrochers, Rodolphe Charles.	" "	"	8, 1896	June	30, 1910
Dillion, R. W.	" "	Dec.	19, 1910	Mar.	23, 1911
Colman, L. H.	" "	May	23, 1911		
Page, John	Chief Engineer	July	1, 1868	Oct.	1, 1879
Perley, H. F.	"	Nov.	25, 1880	July	10, 1891
Coste, Louis	"	July	26, 1892	Mar.	18, 1899
Lafleur, E. D.	"	Jan.	7, 1905		
Dufresne, A. R.	Assistant Chief Engineer	May	13, 1910		
Scott, Thos. S.	Chief Architect	"	26, 1871	Oct.	30, 1881
Fuller, Thomas	"	Oct.	31, 1881	June	30, 1897
Ewart, David, I.S.O.	"	Nov.	2, 1897		

NAMES

OF THE

Officials Employed on the Slides and Booms of Canada

ON MARCH 31, 1914

WITH

DATES OF APPOINTMENT, SALARIES, ETC.

OFFICIALS EMPLOYED ON THE SLIDES AND BOOMS.

STATEMENT showing the Names, Dates of Appointment, Salaries, etc., of persons employed on the various Slides and Booms on March 31, 1914.

Name.	Date of Birth.	Position.	Where Employed.	Date of Appointment.	Salary.	Remarks.
Collector of Public Works Revenue.					$ cts.	
E. T. Smith	Nov. 26, 1846	Collector—First Div. Subdivision 'A'.	Ottawa	July 1, 1889.	3,000 00 a year.	Date of first appointment to Crown Timber Office, Ottawa, June 23, 1864. Clerk in Dept. of Inland Revenue, July 1, 1870, to June 30, 1889. Transferred to civil list with rank of first class clerk, January 5, 1892. Chief clerk, July 1, 1906. Subdivision A of 1st Division, 1st April, 1912.
J. Brassard	Jan. 9, 1859	Boatman	"	Mar. 1, 1901.	70 00 a m'th.	
Saguenay District.						
William Dallaire	Oct. 8, 1857	Boom master	Chicoutimi	April 1, 1907.	75 00 "	
Jean Boucher		Asst. boom master	"	" 1912.	70 00 "	
Arm. Ouellet	June 15, 1879	Boom keeper	"	May 1, 1906.	50 00 "	
Willie Dallaire	Dec. 23, 1882	"	"	" 1, 1906.	60 00 "	
N. Duchesne	Jan. 6, 1880	"	"	April 6, 1908.	50 00 "	
St. Maurice District.						
John Dick	April 7, 1848	Boom master	Mouth of St. Maurice	May 21, 1898.	75 00 "	
Jos. Brousseau	Jan. 3, 1869	"	" "	Feb. 1, 1912.	75 00 "	
Jos. Page	July 7, 1845	"	Cap aux Corneilles	Dec. 10, 1879.	75 00 "	
C. Lymburner	" 21, 1833	"	" "	Feb. 26, 1912.	75 00 "	
F. Bronsseau	Sept. 12, 1865	"	" "	" 28, 1912.	75 00 "	
P. Gelinas	Jan. 6, 1862	"	Les Gres	Mar. 28, 1912.	75 00 "	
S. Bisson	Oct. 17, 1863	Slide master	Shawinigan Falls	Feb. 1, 1911.	60 00 "	
J. Paquin	" 9, 1864	Boom master	Grand Mere	Nov. 21, 1911.	75 00 "	
F. C. Boucher	July 24, 1868	Asst. master	"	July 1, 1912.	60 00 "	
Alp. Doncet	Feb. 14, 1867	Boom master	Grande Piles	Dec. 2, 1912.	75 00 "	
Ottawa District.						
R. F. H. Bruce	June 3rd, 1863	Superintendent	Ottawa	Feb. 11, 1914.	2,500 00 a year.	Mr. Bruce entered the service Dec. 14, 1911, as Asst. Engr., on the staff of the Upper Ottawa River Storage.

J. Kent	Jan.	28,	1864	Accountant *	"	Aug.	1,	1886	1,800 00	"	*Ottawa River Works*: In addition to these officers, etc., there are employed during the running season, one foreman on slide at $2.00, and one assistant foreman at $1.75 a day; also 25 to 30 labourers at $1.75 to $2.00 a working day.
J. C. Scott	June	27,	1865	Assist. engineer	"	April	1,	1889	2,100 00	"	
S. E. Smith	May	25,	1869	Clerk	"	Nov.	7,	1904	1,300 00	"	
G. H. McGay Miss	Aug.	16,	1882	Typewriter	"	Jan.	22,	1914	600 00	"	
Wm. Cain	April	22,	1860	Messenger	"	Jan.	1,	1892	800 00	"	
Geo. P. Huguet	Mar.	13,	1883	Draughtsman	"	July	2,	1905	1,400 00	"	
G. R. Nash	Oct.	16,	1882	"	"	Aug.	26,	1904	1,600 00	"	
D. Noonan	June	17,	1840	Boom master	Gatineau	Mar.	21,	1878	750 00	"	
J. Nash	Jan.	13,	1857	Deputy slide master	Chaudière	Mar.	25,	1913	3 00	a day	
L. Cousineau	Dec.	30,	1852	" "	Hull	Oct.	26,	1911	75 00	a month	
Jos. Gaudette	June	24,	1840	" "	Arnprior	May	17,	1912	2 50	a day	Actively employed about seven months.
Joseph McCrea	Mar.	26,	1859	Boom master	Springtown	May	15,	1880	25 00	a month	
Patrick Barry	Mar.	27,	1858	Deputy slide master	High Falls	Mar.	10,	1888	1 50	a day	Employed four months during season of navigation
Duncan McLaren	Jan.	7,	1865	" "	Portage du Fort	Sept.	7,	1881	456 25	a year	Oversees repairs in winter.
N. Rochon	April	2,	1879	" "	Black River	Mar.	1,	1900	480 00	"	" "
H. B. Smith	June	5,	1856	" "	Lower Petawawa	May	13,	1912	2 00	a day	" "
F. Chamberlin				" "	Upper Petawawa	April	11,	1914	2 00	"	" "
Wm. Thomson	May	3,	1843	" "	Mountain	Sept.	2,	1879	1 25	"	" 6 months "
S. Moorhead	May	3,	1861	" "	Calumet	Mar.	1,	1901	1 25	"	" 6 to 7 months "
John Mullin	July	27,	1861	" "	Coulonge	April	10,	1899	2 00	"	" 4 months "
Thos. Tait	Nov.	13,	1887	" "	Dumoine	April	20,	1912	2 00	"	Employed three months during the season of nav. Will inspect works when required.
Jas. Carey	July	6,	1850	In charge	Cedar Lake Dam	April	1,	1901	2 00	"	
T. McAnulty	June	5,	1857	Deputy slide master	Crooked Chute	May	14,	1912	2 00	"	
A. H. Johnson	Nov.	28,	1839	" "	Chenaux	———		1865	3 00	"	Paid during season of navigation, seven months.
Newcastle District.											
Thos. Austin	June	5,	1857	Slide master	Fenelon Falls	Jan.	1,	1912	100 00	a year	Receives $360 a year as lock master from Department of Railways and Canals.
J. C. Bates				"	Burleigh	Feb.	6,	1907	100 00	"	" "
Richelieu District.											
N. Menard				Boom master	Belœil Station	May	21,	1908	100 00	"	
Burlington Channel Swing Bridge.											
Robert Lutz	Mar.	23,	1864	Bridge attendant	Burlington	April	1,	1912	70 00	a month	
N. Carey	April	30,	1875	Bridge assistant	"	June	1,	1912	2 00	a day	Employed nine months.
J. J. Fulton	May	3,	1881	"	"	Mar.	1,	1913	2 00	"	" " "

* Appointed Accountant and Paymaster, October 4, 1904.

LOCKS, ETC., EMPLOYEES.

STATEMENT showing the Names, Dates of Appointment, Salaries, etc.

Name.	Date of Birth.	Position.	Where employed.	Date of Appointment.	Salary.	Remarks.
Yamaska Lock.					$ cts.	
M. Lemaire	Dec. 8, 1867	Lock keeper	Yamaska	Jan. 1, 1914	75 00 a month	Employed nine months.
H. Lambert	Aug. 20, 1844	"	"	July 1, 1897	50 00 "	" " "
Riviere du Lievre Lock.						
O. Laframboise		Lock master	Rivière du Lievre	May 1, 1912	65 00 "	
D. Lauzon	June 1, 1886	Labourer	"	April 5, 1911	60 00 "	Employed eight months.
St. Andrew's Rapids Lock and dam.						
John Hay	Sept. 4, 1870	Superintendent	Red River Man	Nov. 27, 1911	1,800 00	
H. B. Johnston	July 1871	Asst. superintendent	"	April 1, 1910	1,200 00	
N. Ross	July 4, 1882	Electrician	"	Jan. 1, 1912	1,100 00	
C. Johnston	July 6, 1882	Machinist	"	June 23, 1913	1,000 00	
A. J. Sanders	Mar. 17, 1880	Lockman	"	May 3, 1912	755 00	
A. Tilder	Oct. 9, 1854	"	"	May 3, 1912	755 00	
John Sanders	Feb. 21, 1867	"	"	Aug. 12, 1912	755 00	
James Swain	Mar. 15, 1890	"	"	June 23, 1913	755 00	

JOS. VINCENT.

NAMES

OF

PERSONS EMPLOYED IN THE VARIOUS GRAVING DOCKS

ON MARCH 31, 1914

WITH

DATES OF APPOINTMENT, SALARIES, ETC.

GRAVING DOCK EMPLOYEES.

STATEMENT showing the Names, Dates of Appointment, Salaries, etc., of persons employed on the various Graving Docks, March 31, 1914.

Name.	Position.	Where employed.	Date of Appointment.	Salary.	Remarks.
Esquimalt Graving Dock, British Columbia.					
J. A. Gould	Dockmaster	Esquimalt	June 20, 1906	165 00 a month.	
John Jeffcott	Engineer	"	Jan. 4, 1901	132 00 "	
F. N. Jones	Assistant engineer	"	Jan. 8, 1901	100 00 "	
A. D. Grieve	Carpenter	"	Dec. 1, 1878	126 50 "	
J. Young	Labourer	"	June 1, 1903	77 00 "	
J. Stock	"	"	July 2, 1894	71 50 "	
Joseph Ball	Stoker	"		77 00 "	
W. Enright	"	"	April 17, 1914	77 00 "	
James Isbester	Watchman	"	July 24, 1909	71 50 "	
Levis Graving Dock.					
Alf. Samson	Dockmaster	Levis	Feb. 15, 1900	1,800 a year	
W. McDougall	Mechanical engineer	"	June 1, 1888	90 00 a month.	
T. Depres	Asst. mechanical engineer	"	July 21, 1901	83 33 "	
Casimier Bourassa	Fireman	"	Feb. 15, 1907	65 00 "	
Kingston Graving Dock.					
Dock leased May 1, 1910, for a period of 21 years to the Kingston Dry Dock, and Shipbuilding Company, Limited.—W. J. Fair, Secretary.					

JOS. VINCENT.

NAMES

OF

ENGINEERS, ENGINEMEN, FIREMEN AND CARETAKERS

EMPLOYED ON THE

PUBLIC BUILDINGS THROUGHOUT THE DOMINION ON MARCH 31, 1914

DATES OF APPOINTMENT, SALARIES, ETC.

ENGINEERS AND CARETAKERS, PUBLIC BUILDINGS.

STATEMENT showing the Names, etc., of the Engineers, Enginemen, Firemen, Caretakers, Hoist Attendants and Watchmen employed at Dominion Public Buildings on March 31, 1914.

Place.	Building.	Name.	Date of Birth.	Position.	Date of Appointment.	Monthly Salary.	Time Employed each year.	Yearly Salary.
						$ cts.		$ cts.
Amherst, N.S.	Public building	J. H. Chapman	Jan. 3, 1846	Caretaker	Sept. 1, 1901	33 33	12 months	400 00
Annapolis "	"	John McKay	Oct. 26, 1847	"	April 1, 1891	33 33	12 "	400 00
Antigonish "	"	A. Beaton	May 8, 1848	"	" 10, 1914	33 33	12 "	400 00
Arichat, "	"	Mrs. A. DeRooch	June 30, 1868	"	May 5, 1905	12 50	12 "	150 00
Baddeck, "	"	D. Munro	May 1, 1845	"	July 1, 1912	33 33	12 "	400 00
Bridgewater "	"	Thos. Cohoon	Jan. 9, 1853	"	Jan. 19, 1909	33 33	12 "	400 00
Canso, "	"	G. A. Pyche	June 17, 1865	"	Dec. 8, 1911	33 33	12 "	400 00
Dartmouth "	"	I. C. Henley	Dec. 11, 1846	"	May 22, 1894	37 50	12 "	450 00
Digby "	"	F. Denison	Nov. 8, 1841	"	" 14, 1902	33 33	12 "	400 00
Glace Bay "	"	Mrs. J. A. Currie	June 29, 1865	"	Dec. 20, 1909	50 00	12 "	600 00
Guysborough "	"	Mrs. L. Hadley	Dec. 27, 1860	Act'g. Caretaker	Mar. 31, 1911	10 00	12 "	120 00
Halifax, "	Ex-warehouse	Martin O'Neil	" 30, 1850	Caretaker	Oct. 1, 1897	54 16	12 "	650 00
" "	Dom. building	Richard Power	Aug. 15, 1834	Engineer	" 1, 1871	62 50	12 "	750 00
" "	"	J. DeYoung	Dec. 8, 1869	Fireman	Nov. 28, 1904	54 16	12 "	650 00
" "	"	J. Handley	Aug. 10, 1854	Asst. fireman	Mar. 1, 1912	54 16	12 "	650 00
" "	"	L. W. Anderson	Nov. —, 1850	Elevatorman	Oct. 31, 1910	54 16	12 "	650 00
" "	"	L. Umlah	July 21, 1885	"	Aug. 1, 1912	54 16	12 "	650 00
" "	"	John Hennessey	" 20, 1864	Watchman	Oct. 1, 1913	54 16	12 "	650 00
" "	Custom house	J. F. Sullivan	April 16, 1866	Caretaker	July 1, 1872	50 00	12 "	600 00
" "	"	Geo. Crockford	June 19, 1855	Cleaner	" 7, 1910	50 00	12 "	600 00
" "	"	F. Warner	Oct. 8, 1860	Fireman	May 1, 1907	41 66	12 "	500 00
" "	"	J. Barnes	Dec. 3, 1857	Engineer	Jan. 28, 1907	64 16	12 "	770 00
" "	"	P. L. Nickerson	Mar. 4, 1887	Elevatorman	Feb. 6, 1911	54 16	12 "	650 00
" "	"	G. Selig	April 21, 1854	Fireman	April 26, 1907	54 16	12 "	650 00
" "	Img. building	John Oxley	" 17, 1856	"	Feb. 2, 1897	64 16	12 "	770 00
" "	"	J. Brennan	Oct. 22, 1858	Asst. caretaker	" 1, 1913	54 16	12 "	650 00
Inverness "	Public building	J. A. McDonald	July 1, 1878	Caretaker	Dec. 1, 1911	33 33	12 "	400 00
Kentville "	"	W. Hiltz	April 10, 1864	"	Nov. 14, 1900	33 33	12 "	400 00
Lunenburg "	"	C. Dauphinee	Mar. 19, 1867	"	July 1, 1912	33 33	12 "	400 00
Liverpool "	"	James Clements	June 5, 1835	"	June 27, 1900	33 33	12 "	400 00
New Glasgow "	"	K. Forbes	" 11, 1851	"	Dec. 1, 1910	37 50	12 "	450 00
North Sydney "	"	H. D. McMillan	Nov. 16, 1865	"	Mar. 11, 1911	37 50	12 "	450 00
Parsboro' "	"	N. Phinney	Dec. 22, 1862	"	Aug. 27, 1913	33 33	12 "	400 00
Pictou "	"	M. Roach	Oct. 15, 1839	"	" 27, 1912	25 00	12 "	300 00

"	"	Custom house	F. J. Cole	May	8, 1848	"	"	27, 1912	25 00	12	"	300 00
Shelburne	"	Public building	H. Swensburg	July	7, 1844	"	Feb.	17, 1911	33 33	12	"	400 00
Springhill	N. S.	Public building	J. A. Watt	Sept.	5, 1849	"	Dec.	1, 1903	37 50	12	"	450 00
Sydney	"	"	Mrs. M. Keefe	Jan.	4, 1850	"	Jan.	13, 1903	38 33	12	"	460 00
Sidney Mines	"	"	R. Way	May	20, 1888	"	Aug.	1, 1913	37 50	12	"	450 00
Truro	"	Post Office	A. W. Wesbury	Mar.	17, 1868	"	May	1, 1913	33 33	12	"	400 00
Westville	"	Public building	M. Conners	Nov.	5, 1855	"	April	1, 1913	33 33	12	"	400 00
Windsor	"	Post Office	J. A. Mosher	Nov.	16, 1841	"	Feb.	13, 1899	41 66	12	"	500 00
Yarmouth	"	Public building	W. H. Whelan	Dec.	23, 1841	"	Mar.	1, 1900	33 33	12	"	400 00
Charlottetown	P. E. I.	Old bank building	Ed. Flynn	Mar.	16, 1856	Caretaker	Oct.	1, 1911	50 00	12	"	600 00
"	"	Dom. building	Angus Mackenzie	May	12, 1856	"	Nov.	1, 1896	58 33	12	"	700 00
"	"	"	E. Cameron	Nov.	2, 1853	Messenger	Nov.	15, 1906	41 66	12	"	500 00
"	"	"	J. Savidant	June	19, 1869	Asst. Caretaker	Dec.	9, 1912	50 00	12	"	600 00
"	"	"	M. A. Allan	Aug.	1, 1855	"	Jan.	24, 1898	50 00	12	"	600 00
Georgetown	"	Public building	A. D. McLellen, P.M.	July	22, 1873	Caretaker	Sept.	1, 1913	10 00	12	"	120 00
Montague	"	"	H. L. Peardon	April	13, 1895	"	Aug.	27, 1906	13 33	12	"	160 00
Summerside	"	"	A. McCormack	Aug.	5, 1851	"	Feb.	14, 1913	33 33	12	"	400 00
Souris	"	"	R. F. St. John	June	27, 1873	"	June	17, 1912	33 33	12	"	400 00
Tignish	"	"	J. W. Chiasson	Feb.	14, 1861	"	Mar.	29, 1913	33 33	12	"	400 00
Bathurst	N.B.	"	J. H. Doucet	July	16, 1846	"	Mar.	26, 1906	33 33	12	"	400 00
Campbellton	"	"	C. Watson	July	15, 1855	"	Mar.	1, 1912	33 33	12	"	400 00
Carleton	"	"	Mrs. J. C. Leonard	April	11, 1859	Acting caretaker	Sept.	15, 1908	33 33	12	"	400 00
Chatham	"	"	Chas Johnston	May	18, 1856	Caretaker	Mar.	27, 1895	25 00	12	"	300 00
Dalhousie	"	"	Wm Gould	Jan.	1, 1853	"	Nov.	26, 1890	33 33	12	"	400 00
Fairville	"	"	Alex. Scott	April	18, 1873	"	Feb.	3, 1913	33 33	12	"	400 00
Fredericton	"	"	Ludlow Yarxa	Dec.	18, 1843	"	July	1, 1900	41 66	12	"	500 00
Grand Falls	"	"	J. R. Graham	Nov.	18, 1840	"	Aug.	30, 1912	33 33	12	"	400 00
Hartland	"	"	J. W. Adams	Feb	10, 1847	"	June	11, 1912	41 66	12	"	500 00
Hillsborough	"	"	R. Slater	Mar.	17, 1849	"	Dec.	2, 1912	33 33	12	"	400 00
Marysville	"	"	Jas. Inch, P.M	Sept.	10, 1850	"	May	31, 1912	12 50	12	"	150 00
Moncton	"	"	E. B. Hicks	Jan.	11, 1832	"	Jan.	11, 1886	37 50	12	"	450 00
Newcastle	"	"	Patrick Keating	Mar.	13, 1846	"	Oct.	23, 1886	41 66	12	"	500 00
Richibucto	"	"	G. Holleran	Sept.	19, 1863	"	April	5, 1912	33 33	12	"	400 00
Sussex	"	"	T. Gagnon	Mar.	23, 1857	"	April	1, 1913	33 33	12	"	400 00
St. John	"	Custom house	N. J. Morrison	July	25, 1858	Engr. and caretaker	May	1, 1894	70 00	12	"	840 00
"	"	"	Christopher White	Nov.	20, 1844	Caretaker	Nov.	9, 1885	55 00	12	"	660 00
"	"	"	J. T. Logan	Sept.	1, 1882	Asst. Fireman	Dec.	23, 1908	55 00	12	"	660 00
"	"	"	James A. Paul	Aug.	1, 1837	Messenger	Oct.	13, 1891	58 33	12	"	700 00
"	"	"	D. McKellar	June	4, 1855	Elev. man	Feb.	27, 1914	60 00	12	"	720 00
"	"	Post Office	Jas. Wolfe	Mar.	10, 1850	Engineer	Dec.	1, 1892	65 00	12	"	780 00
"	"	"	Edward Haney	Feb.	22, 1849	Elev. man	Nov.	27, 1882	60 00	12	"	720 00
"	"	"	John Killen	June	9, 1857	Caretaker	Mar.	4, 1912	50 00	12	"	600 00
"	"	"	H. R. Garity	Sept.	6, 1877	Asst. caretaker	April	16, 1910	40 00	12	"	480 00
"	"	Detention Building	H. Stackhouse	Oct.	13, 1851	Watchman	Nov.	15, 1911	$2.00 p. d.	12	"	730 00
"	"	Img. building	Fred. Haslam	Dec.	30, 1876	"	Jan.	29, 1903	55 00	12	"	660 00
"	"	Img. building	Joseph Sleeth	Oct.	3, 1872	"	Sept.	1902	55 00	12	"	660 00
"	"	Quarantine station	Fred. Hargrave	April	25, 1871	Caretaker	Dec.	29, 1904	60 00	12	"	720 00
St. Stephen	"	Public building	W. Evans	Mar.	10, 1859	"	Jan.	1, 1913	45 83	12	"	550 00
Tracadie	"	Lazaretto	P. Arsenault	May	19, 1869	Fireman	Dec.	24, 1908	45 00	12	"	540 00

STATEMENT showing the names, etc., of the Engineers, Enginemen, Firemen, Caretakers, Hoist Attendants and Watchmen employed at Dominion Public Buildings on March 31, 1914—*Continued.*

Place.	Building.	Name.	Date of Birth.	Position.	Date of Appointment.	Montly Salary.	Time Employed each year	Yearly Salary.
						$ cts.		$ cts.
Tracadie, ... N.B.	Lazaretto	A. Arseneau	May 3, 1883	Fireman	Oct. 9, 1912	35 00	12 months..	420 00
Woodstock..... "	Public building.....	W. Hay.....	Nov. 15, 1844	Caretaker.....	Feb. 17, 1911	37 50	12 " ..	450 00
Arthabaska..... P.Q.	"	Dr. E. O. Belleau.....	Sept. 1, 1856	"	Nov. 22, 1911	33 33	12 " ..	400 00
Aylmer..... "	"	L. Chartier.....	Aug. 23, 1860	"	June 4, 1912	8 33	12 " ..	100 00
Acton Vale..... "	"	F. X. Beauregard.....	April 9, 1847	"	Nov. 1, 1911	41 66	12 " ..	500 00
Berthierville..... "	"	J. A. Roeray	May 24, 1893	"	May 7, 1912	6 25	12 " ..	75 00
Buckingham..... "	"	T. F. Bisson, P.M.....	May 23, 1848	"	Feb. 3, 1903	10 00	12 " ..	120 00
Chicoutimi ..... "	"	G. A. Blais.....	Sept. 24, 1870	"	Dec. 4, 1907	45 83	12 " ..	550 00
Coaticook..... "	"	I. Baldwin	Nov. 16, 1839	"	June 27, 1889	41 66	12 " ..	500 00
Cookshire ..... "	"	S. Wright	June 25, 1856	"	Feb. 4, 1909	33 33	12 " ..	400 00
Drummondville ..... "	"	O. H. Bernard	Sept. 15, 1847	"	July 25, 1912	33 33	12 " ..	400 00
Farnham, West..... "	"	J. Belanger.....	Jan. 19, 1847	"	Jan. 30, 1906	25 00	12 " ..	300 00
Fraserville ..... "	"	E. Dubé	Nov. 11, 1847	"	May 12, 1911	33 33	12 " ..	400 00
Granby..... "	"	Wm. Bourgeois	Nov. 17, 1877	"	Jan. 1, 1912	25 00	12 " ..	300 00
Hull ..... "	Post Office.....	T. J. Madore, P.M.....	Dec. 1, 1843	"	Mar. 8, 1900	12 50	12 " ..	150 00
Iberville..... "	"	A. Courtois.....	Jan. 20, 1869	"	May 7, 1907	40 00	12 " ..	480 00
Joliette ..... "	Public building.....	Adolphe Ratel.....	Dec. 29, 1845	"	Sept. 1, 1897	41 66	12 " ..	500 00
Knowlton ..... "	"	L. H. Pibus, P.M.....	April 22, 1877	"	May 1, 1912	12 50	12 " ..	150 00
Lachine ..... "	"	O. P. Robert, P.M.....	Sept. 7, 1846	"	Jan. 26, 1899	8 33	12 " ..	100 00
Lachute ..... "	"	D. Joss.....	Oct. 10, 1857	"	April 28, 1909	33 33	12 " ..	400 00
Lapraire ..... "	"	Jos. Bisson, P.M	Nov. 11, 1869	"	Nov. 22, 1901	12 50	12 " ..	150 00
Levis..... "	"	C. Lamontagne	Dec. 28, 1850	"	Mar. 17, 1908	35 41	12 " .	425 00
Longueuil..... "	"	E. H. Lamarre.....	April 28, 1839	"	Jan. 1, 1912	25 00	12 " ..	300 00
L'Assomption.. ..... "	"	A. Martel	 1860	"	Nov. 18, 1911	25 00	12 " ..	300 00
Magog..... "	"	J. Dearsley.....	Dec. 6, 1881	"	Feb. 1, 1914	33 33	12 " ..	400 00
Marieville..... "	"	P. Prairie.....	Nov. 17, 1886	"	Oct. 13, 1912	25 00	12 " ..	300 00
Megantic..... "	"	S. Brousseau	Sept. 25, 1842	"	Feb. 15, 1912	33 33	12 " ..	400 00
Montmagny..... "	"	H. Courteau.....	Feb. 21, 1861	"	July 1, 1912	33 33	12 " ..	400 00
Montreal..... "	Custom house	C. Daudelin.....	June 19, 1843	"	July 16, 1892	41 66	12 " ..	500 00
" ..... "	"	C. Girard.....	Aug. 11, 1844	Cleaner.....	Oct. 28, 1910	55 00	12 " ..	660 00
" ..... "	"	F. X. Bernier.....	May 24, 1856	"	Oct. 28, 1910	55 00	12 " ..	660 00
" ..... "	"	A. Clairemont	May 8, 1865	"	Dec. 1, 1912	50 00	12 " .	600 00
" ..... "	"	A. Cousineau.....	June 26, 1862	"	April 15, 1912	50 00	12 " ..	600 00
" ..... "	"	B. Lejeunesse.....	Nov. 20, 1861	Fireman	Nov. 23, 1896	65 00	12 " ..	780 00
" ..... "	"	J. McMahon.....	Oct. 15, 1865	.....	Sept. 26, 1912	65 00	12 " .	780 00
" ..... "	"	A. Tremblay.....	April 12, 1862	Plumber..	Oct. 25, 1907	60 00	12 " ..	720 00
" ..... "	Examining warehouse...	M. Boyer.....	Feb. 18, 1848	Engineer.....	Mar. 4, 1882	70 00	12 " ..	840 00

"	"	J. Forgues	May	15, 1874	Fireman	Nov.	2, 1904	65 00	12	"	780 00
"	"	A. Tremblay	April	12, 1862	Fireman, night	Oct.	25, 1907	60 00	12	"	720 00
"	"	P. Prudhomme	Mar.	7, 1854	P. elev. attend	Mar.	19, 1906	60 00	12	"	720 00
"	"	S. McGarry	June	15, 1873	Frt. elev. attend	Jan.	12, 1904	60 00	12	"	720 00
"	"	H. Marchand	Mar.	15, 1856	"	Oct.	7, 1904	60 00	12	"	720 00
"	"	J. Neville	Mar.	18, 1870	"	Jan.	12, 1904	60 00	12	"	720 00
"	"	A. Drouin	June	14, 1868	"	Nov.	28, 1904	60 00	12	"	720 00
"	"	A. Barrette	Aug.	28, 1873	"	July	21, 1908	60 00	12	"	720 00
"	"	A. Lesieur	June	22, 1868	"	April	18, 1905	60 00	12	"	720 00
"	"	J. Larocque	Nov.	25, 1856	Cleaner	Feb.	1, 1912	55 00	12	"	660 00
"	"	S. Lanctot	June	28, 1850	"	Nov.	23, 1905	55 00	12	"	660 00
"	"	J. B. Desjardins	Jan.	21, 1863	"	Jan.	26, 1907	55 00	12	"	660 00
"	"	U. Paquette	Oct.	13, 1866	"	June	1, 1909	55 00	12	"	660 00
"	"	J. Brunette	Oct.	16, 1854	"	Sept.	19, 1912	55 00	12	"	660 00
"	"	H. Valiquette	Dec.	30, 1871	Carpenter	Feb.	1, 1903	70 00	12	"	840 00
"	"	A. Poirier	June	18, 1870	"	Oct.	5, 1909	65 00	12	"	780 00
"	"	A. Nuttall	Feb.	15, 1872	Electrician	June	1, 1905	65 00	12	"	780 00
Exp. Customs	"	J. Quinn	June	4, 1882	Fireman	July	2, 1908	70 00	12	"	840 00
"	"	J. Donavan	Aug.	7, 1841	"	Mar.	29, 1913	60 00	12	"	720 00
Inland Revenue	"	Ls. St. Jean	Sept.	17, 1840	"	Dec.	1, 1892	60 00	12	"	720 00
"	"	M. O'Donnell	Sept.	13, 1863	Caretaker	May	17, 1912	20 00	12	"	240 00
Dominion buildings	"	A. Morrison	Aug.	15, 1878	Insp. electricity	April	3, 1913	125 00	12	"	1,500 00
Gen'l. P. Office	"	D. Brown	Jan.	16, 1861	Chief engineer	June	13, 1912	108 00	12	"	1,300 00
"	"	I. Trudeau	Jan.	22, 1863	Caretaker	Oct.	1, 1902	95 00	15	"	1,140 00
"	"	A. Gaignery	June	19, 1862	Cleaner	Oct.	1, 1912	50 00	12	"	600 00
"	"	W. Page	Mar.	4, 1851	"	Nov.	—, 1908	50 00	12	"	600 00
"	"	C. Rochon	Jan.	18, 1850	"	Jan.	17, 1906	50 00	12	"	600 00
"	"	Ed. Beaudette	Mar.	26, 1859	"	Oct.	18, 1904	50 00	12	"	600 00
"	"	H. Montigny	April	30, 1867	"	Sept,	16, 1912	50 00	12	"	600 00
"	"	S. Lauzon	May	5, 1858	"	Feb.	2, 1912	50 00	12	"	600 00
"	"	M. Paré	May	7, 1889	"	Oct.	1, 1911	50 00	12	"	600 00
"	"	Wm. J. Boots	April	14, 1880	"	Feb.	6, 1912	50 00	12	"	600 00
"	"	J. Laplante	Mar.	12, 1856	"	Dec.	12, 1907	50 00	12	"	600 00
"	"	L. Bélanger	Mar.	31, 1853	"	May	13, 1912	50 00	12	"	600 00
"	"	P. Roy	Aug.	10, 1888	"	July	14, 1907	55 00	12	"	660 00
"	"	Jos. Brunet	June	27, 1881	"	Oct.	7, 1908	55 00	12	"	660 00
"	"	T. Gauthier	July	10, 1865	"	Jan.	14, 1908	55 00	12	"	660 00
"	"	P. Germain	Feb.	4, 1854	"	Jan.	15, 1912	50 00	12	"	600 00
"	"	P. Cloutier	Feb.	3, 1853	"	Aug.	26, 1912	50 00	12	"	600 00
"	"	D. Decary	Aug.	4, 1875	"	Aug.	2, 1912	50 00	12	"	600 00
"	"	E. Thompson	Oct.	26, 1868	"	Mar.	1, 1913	50 00	12	"	600 00
"	"	D. Ledoux	Mar.	5, 1859	"	Oct.	17, 1912	50 00	12	"	600 00
"	"	F. Labelle	Nov.	13, 1853	"	Nov.	1, 1912	50 00	12	"	600 00
"	"	A. Deschene	Nov.	18, 1849	"	Nov.	3, 1912	50 00	12	"	600 00
"	"	H. Martin	July	1, 1873	"	Jan.	9, 1911	55 00	12	"	660 00
"	"	A. Bastien	Nov.	1, 1862	"	Dec.	20, 1912	50 00	12	"	600 00
"	"	H. Provencher	Sep.	5, 1878	"	Mar.	1, 1913	50 00	12	"	600 00
"	"	J. P. Murphy	Dec.	18, 1852	"	May	19, 1907	50 00	12	"	600 00
"	"	C. Lauzon	Dec.	11, 1860	"	Feb.	28, 1913	50 00	12	"	600 00
"	"	J. Davidson	Oct.	11, 1865	"	May	3, 1913	50 00	12	"	600 00

STATEMENT showing the names, etc., of the Engineers, Enginemen, Firemen, Caretakers, Hoist Attendants and Watchman employed at Dominion Public Buildings on March 31, 1914—*Continued*

Place.	Building.	Name.	Date of Birth.	Position.	Date of Appointment.	Monthly Salary.	Time Employed each year.	Yearly Salary.
						$ cts.		$ cts.
Montreal, P.Q.	Gen'l P. Office	J. Ouimet	Mar. 15, 1872	Cleaner	Feb. 1, 1913	50 00	12 months	600 00
"	"	D. Hughes	Dec. 14, 1885	"	Mar. 5, 1913	50 00	12 "	600 00
"	"	H. St. Pierre	Oct. 25, 1849	"	Mar. 3, 1913	50 00	12 "	600 00
"	"	H. Deslauriers	Jan. 9, 1842	"	Feb. 7, 1913	50 00	12 "	600 00
"	"	E. Prevost	Aug. 21, 1854	"	Mar. 18, 1913	50 00	12 "	600 00
"	"	L. Prud'homme	June 27, 1883	"	Feb. 14, 1912	50 00	12 "	600 00
"	"	I. Jasmin	Sept. 25, 1844	"	Jan. 9, 1912	50 00	12 "	600 00
"	"	M. Loranger	June 27, 1864	"	May 13, 1912	50 00	12 "	600 00
"	"	D. Royer, Mrs.	July 30, 1843	Charwoman	June 1, 1887	28 00	12 "	336 00
"	"	A. Crochetière, Mrs.	Sept. 29, 1859	"	Nov. 1, 1897	28 00	12 "	336 00
"	"	V. Laverdure	June, 16, 1859	"	Nov. 12, 1912	28 00	12 "	336 00
"	"	L. D. Thibault	Jan. 28, 1861	Electrician	Dec. 15, 1905	70 00	12 "	840 00
"	"	F. X. Lefebvre	Dec. 13, 1859	"	June 28, 1905	70 00	12 "	840 00
"	"	Osias Renaud	June 14, 1869	"	Feb. 2, 1907	70 00	12 "	840 00
"	"	G. Fauteux	Feb. 11, 1879	"	Feb. 1, 1913	65 00	12 "	780 00
"	"	G. Flanagan	May 23, 1862	"	Sept. 13, 1906	65 00	12 "	780 00
"	"	P. Lucey	Jan. 17, 1883	"	Dec. 28, 1912	65 00	12 "	780 00
"	"	J. Langevin	Mar. 10, 1850	Fireman	Oct. 18, 1904	60 00	12 "	720 00
"	"	F. Rochon	Mar. 5, 1869	P. elev. attend.	June 14, 1912	60 00	12 "	720 00
"	"	Oscar Renaud	Feb. 19, 1862	"	Sept. 10, 1898	60 00	12 "	720 00
"	"	S. Trudeau	Oct. 14, 1855	"	Feb. 23, 1913	60 00	12 "	720 00
"	"	O. Chaput	Aug. 18, 1854	"	Nov. 1, 1909	60 00	12 "	720 00
"	"	O. de Ladurantaye	June 29, 1852	"	April 26, 1906	60 00	12 "	720 00
"	"	J. Cantin	Feb. 23, 1855	"	Feb. 23, 1913	60 00	12 "	720 00
"	"	A. Archambault	July 6, 1869	"	Nov. 29, 1912	50 00	12 "	600 00
"	"	W. Filiatreault	May 22, 1873	"	Jan. 23, 1912	60 00	12 "	720 00
"	"	M. Wickham	Feb. —, 1877	"	Feb. 14, 1912	60 00	12 "	720 00
"	"	J. B. Richot	Jan. 14, 1869	"	Feb. 25, 1913	60 00	12 "	720 00
"	"	C. Prud'homme	Aug. 16, 1884	Frt. elev. attend	May 8, 1912	55 00	12 "	660 00
"	"	A. Bourassa	June 1, 1857	"	Aug. 4, 1893	60 00	12 "	720 00
"	"	A. Trudeau	April 13, 1866	"	Jan. 17, 1908	60 00	12 "	720 00
"	"	Ls. Brault	Dec. 29, 1854	"	Sept. 1, 1901	60 00	12 "	720 00
"	"	C. Varin	May 13, 1883	"	Jan. 1, 1911	55 00	12 "	660 00
"	"	W. J. Tremblay	May 22, 1879	"	Dec. 1, 1911	55 00	12 "	660 00
"	"	J. C. Thibault	Oct. 10, 1852	Mess. govt. rms.	Dec. 2, 1909	65 00	12 "	780 00
"	"	J. McClanagan	Mar. 14, 1860	Asst. messenger	July 2, 1902	65 00	12 "	780 00

"	"	"	J. I. R. Barthe	July	12, 1863	"	May	1, 1906	55 00	12	"	"	660 00
"	"	"	G. Robert	Dec.	18, 1853	Lobby kpr. day	July	1, 1902	60 00	12	"	"	720 00
"	"	"	E. Richer	April	17, 1871	"	July	2, 1912	60 00	12	"	"	720 00
"	"	"	J. Murphy	Dec.	18, 1852	Lobby kpr. night	May	19, 1907	60 00	12	"	"	720 00
"	"	"	C. Berthiaume	Nov.	8, 1870	Watchman night	July	2, 1902	65 00	12	"	"	780 00
"	"	"	T. Thompson	May	9, 1857	"	Aug.	1, 1912	70 00	12	"	"	840 00
"	"	"	L. Bédard	Aug.	18, 1854	Carpenter	April	1, 1908	65 00	12	"	"	780 00
"	"	"	R. C. Bisaillon	Oct.	18, 1855	Messenger	April	17, 1913	60 00	12	"	"	720 00
"	"	"	J. Desautels	Oct.	25, 1855	Watchman			65 00	12	"	"	1,080 00
"	"	"	M. Carey	Feb.	10, 1878	Store keeper	Aug.	4, 1913	90 00	12	"	"	660 00
"	"	"	J. Trudeau	July	6, 1848	Carpenter	Nov.	1, 1912	65 00	12	"	"	780 00
"	"	"	A. Vallée	Aug.	4, 1847	"	Aug.	4, 1910	65 00	12	"	"	780 00
"	"	"	J. W. Corbeil	Nov.	8, 1879	"	Sept.	15, 1912	65 00	12	"	"	780 00
"	"	"	J. Renaud	April	3, 1863	Painter	April	1, 1910	80 00	12	"	"	960 00
"	"	"	E. Hallée	Mar.	14, 1850	"	Jan.	29, 1913	67 50	12	"	"	810 00
"	"	"	F. Valin	Dec.	8, 1886	Carpenter	June	5, 1912	65 00	12	"	"	780 00
"	"	"	F. Cyr	Aug.	15, 1852	"	July	10, 1910	65 00	12	"	"	780 00
"	"	Sta. "B" P.O	T. Drolet	Mar.	11, 1852	Caretaker	Oct.	29, 1908	54 17	12	"	"	650 00
"	"	"	A. Cunningham	April	15, 1878	Cleaner	Jan.	2, 1909	65 00	12	"	"	780 00
"	"	"	M. Dory	Jan.	30, 1876	"	Oct.	20, 1913	50 00	12	"	"	600 00
"	"	Sta. "C" P.O	N. Robillard	June	28, 1859	"	Jan	1, 1912	60 00	12	"	"	720 00
"	"	"	A. Olivier	Jan.	10, 1878	"	Sept.	10, 1913	50 00	12	"	"	600 00
"	"	Sta. "D" P.O	J. H. Roy	Aug.	10, 1888	Caretaker	July	14, 1907	60 00	12	"	"	720 00
"	"	Sta. "E" P.O	H. Paquette	Aug.	7, 1858	"	April	1, 1912	60 00	12	"	"	720 00
"	"	St. Henri P.O	Mrs. G. Colborne	Jan.	30, 1883	Charwoman	Jan.	9, 1912	28 00	12	"	"	336 00
"	"	Hochelaga P.O	J. H. Brown, P.M	Oct.	7, 1851	Caretaker	Mar.	2, 1902	16 66	12	"	"	200 00
Nicolet	"	Public building	U. Papillon	Mar.	16, 1843	"	Nov.	8, 1907	43 33	12	"	"	520 00
Nonmingue	"	Immigration building	V. Charbonneau	Aug.	8, 1878	"	April	8, 1912	25 00	12	"	"	300 00
Peribonca	"	"	Ernest Roy	Dec.	14, 1877	"	Oct.	1, 1902	25 00	12	"	"	300 00
Pierreville	"	Public building	Mrs. S. G. Boucher	May	7, 1853	"	Dec.	1, 1909	12 50	12	"	"	150 00
Plessisville	"	"	J. O. Vallée, P.M	May	22, 1855	"	Nov	1, 1912	10 00	12	"	"	120 00
Quebec	"	Ex-warehouse	D. P. Kennedy	Feb.	9, 1865	Engineer	April	1, 1897	75 00	12	"	"	900 00
"	"	"	J. G. McLaughlin	Nov.	15, 1880	Fireman	July	4, 1906	60 00	12	"	"	720 00
"	"	Culler's Office	Jas. O'Neil	Aug.	15, 1861	"	Aug.	1, 1894	45 00	12	"	"	540 00
"	"	Custom house	J. Mountain	Nov.	1, 1848	"	Nov.	10, 1888	65 00	12	"	"	780 00
"	"	"	Jos. Bigaouette	May	15, 1860	"	Feb.	14, 1914	55 00	12	"	"	660 00
"	"	"	A. Martin	May	20, 1875	Elevatorman	April	12, 1912	55 00	12	"	"	650 00
"	"	Post Office	Rod. Roy	Sept.	23, 1878	Caretaker	Feb.	16, 1910	66 66	12	"	"	800 00
"	"	"	S. Lortie	Aug.	9, 1849	Watchman	Feb.	15, 1912	55 00	12	"	"	650 00
"	"	"	A. Poulin	Jan.	5, 1856	Elevatorman	Mar.	1, 1912	50 00	12	"	"	600 00
"	"	"	C. Robitaille	May	6, 1853	"	Dec.	27, 1912	50 00	12	"	"	600 00
"	"	"	J. D. Villeneuve	Oct.	22, 1875	Messenger	April	17, 1907	50 00	12	"	"	600 00
"	"	"	F. J. Cooper	July	8, 1858	Fireman	June	15, 1895	75 00	12	"	"	900 00
"	"	Gov. Gen. Quar	M. Lewis	May	6, 1871	Caretaker	Sept.	1, 1905	$1.50 p. d.	12	"	"	547 50
"	"	P.O. St. Sauveur	C. Turcotte	June	14, 1866	"	Jan.	8, 1907	12 50	12	"	"	150 00
"	"	P.O. St. Roch	J. B. Turcotte	Sept.	22, 1860	"	May	7, 1910	41 66	12	"	"	500 00
"	"	Public building	D. Lortie	Oct.	16, 1853	Joiner	Feb.	5, 1910	$3.00 p. d.	12	"	"	939 00
"	"	"	A. Petitclerc	Oct.	18, 1865	"	Feb.	5, 1910	$3.00 p. d.	12	"	"	939 00
"	"	"	A. Lacasse	Oct.	19, 1877	Electrician	July	7, 1910	75 00	12	"	"	900 00
Richmond	"	"	H. Desmarais	July	14, 1869	"	May	7, 1898	33 33	12	"	"	400 00

STATEMENT showing the names, etc., of the Engineers, Enginemen, Firemen, Caretakers, Hoist Attendants and Watchmen employed at Dominion Public Buildings on March 31, 1914—*Continued.*

Place.	Building.	Name.	Date of Birth.	Position.	Date of Appointment.	Monthly Salary.	Time Employed each year.	Yearly Salary.
						$ cts.		$ cts.
Rigaud.....P.Q.	Public building	J. B. Charlebois	April 29, 1859	Electrician	Oct. 23, 1912	12 50	12 months	150 00
"	"	G. Vallée	Mar. 26, 1856	Asst. caretaker	Dec. 5, 1912	12 50	12 "	150 00
Rimouski	"	P. Lepage	Jan. 24, 1863	Caretaker	Dec. 5, 1912	25 00	12 "	300 00
Roberval	" Post Office	G. Audet	Nov. 18, 1849	"	May 31, 1907	25 00	12 "	300 00
Rock Island	" Imm't building	L. A. Lanctot	Aug. 4, 1846	"	Nov. 1, 1913	33 33	12 "	400 00
St. Hyacinthe	" Public building	F. X. Tetreault	Nov. 8, 1845	"	Mar, 1, 1912	43 33	12 "	520 00
"	"	E. Clapin	April 9, 1844	"	July 19, 1904	33 33	12 "	400 00
St. Johns	" Inland Revenue	Leon Forrant	Jan. 21, 1849	"	April 14, 1897	29 16	12 "	350 00
"	" Custom house	W. Brousseau, P.M.	Aug. 12, 1840	"	Mar. 25, 1909	25 00	12 "	300 00
St. Jerome	" Post Office	T. Grignon	Mar. 21, 1859	"	Dec. 1, 1911	33 33	12 "	400 00
Shawinigan	" Public building	C. de Carrufel		"		33 33	12 "	400 00
Sherbrooke	"	O. Désève	Aug. 6, 1848	"	April 2, 1898	33 33	12 "	400 00
Sorel	"	J. B. Cadoret	1847	"	June 10, 1912	40 00	12 "	480 00
Terrebone	"	J. Brière	Feb. 15, 1861	"	Nov. 1, 1911	25 00	12 "	300 00
Thetford Mines	"	J. Guillemette, P.M	1859	"	April 17, 1913	12 50	12 "	150 00
Three Rivers	"	T. Beaulieu	April 7, 1850	"	April 1, 1913	50 00	12 "	600 00
Three Rivers	"	P. Gravelle	June 3, 1828	Asst. caretaker	Feb. 1, 1891	25 00	12 "	300 00
Valleyfield	"	Nap. Picard	Mar. 8, 1847	Caretaker	May 2, 1902	40 00	12 "	480 00
Victoriaville	"	C. Thibault	June 1, 1861	"	Aug. 22, 1912	25 00	12 "	300 00
Alexandria.....Ont.	"	D. K. McDonald	July 4, 1847	"	Oct. 17, 1906	41 66	12 "	500 00
Almonte	"	P. Burns	Jan. 28, 1861	"	Sept. 1, 1907	33 33	12 "	400 00
Amherstburg	"	Mrs. R. C. Elliott	Dec. 28, 1854	"	June 6, 1905	33 33	12 "	400 00
Arnprior	"	R. Tait	Oct. 16, 1845	"	Dec. 1, 1909	33 33	12 "	400 00
Barrie	"	E. Sevigny	Mar. 19, 1847	"	May 1, 1903	33 33	12 "	400 00
Berlin	"	Jacob Clements	June 21, 1840	"	May 15, 1900	33 33	12 "	400 00
Belleville	"	S. Haight	Aug. 26, 1857	"	Jan. 24, 1901	54 16	12 "	650 00
Bowmanville	"	W. W. Allin	Jan. 13, 1850	"	Feb. 10, 1905	37 50	12 "	450 00
Brampton	"	Jos. Foster	Sept. 16, 1846	"	Aug. 1, 1906	33 33	12 "	400 00
Brantford	"	John Squire	April 24, 1842	"	Oct. 27, 1880	50 00	12 "	600 00
Bridgeburg	"	Wm. Hanna	Aug. 15, 1863	"	Oct. 3, 1905	29 16	12 "	350 00
Brockville	"	C. F. Gray	April 28, 1861	"	April 2, 1908	45 83	12 "	550 00
Carleton Place	"	J. F. Halpenny	April 17, 1858	"	May 13, 1892	33 33	12 "	400 00
Cayuga	"	C. C. Gibson, P.M		"	May 1, 1913	25 00	12 "	300 00
Chatham	"	W. W. Mitchell	May 25, 1848	"	Jan. 7, 1885	50 00	12 "	600 00
Chesley	"			"				
Clinton	"	James Scott, P.M.	Jan. 21, 1856	"	Feb. 9, 1904	16 66	12 months	200 00

Cobourg	"	"	Wm. Russell	Sept. 5, 1859	"	Feb. 1, 1911	37 50	12	"		450 00
Cornwall	"	"	C. River	Nov. 3, 1856	"	May 1, 1912	37 50	12	"		450 00
Deseronto	"	"	M. Hart	Jan. 15, 1862	"	July 1, 1903	41 66	12	"		500 00
Dresden	"	"	James F. Hart	Aug. 4, 1835	"	Oct. 1, 1913	33 33	12	"		400 00
Dundas	"	"	C. Cooper, P.M.	Jan. 7, 1868	"	Oct. 1, 1913	33 33	12	"		400 00
Elora	"	"	J. F. Huck, P.M.	Sept. 26, 1854	"	June 1, 1913	33 33	12	"		400 00
Essex	"	"	T. Trewin	June 27, 1840	"	Jan. 14, 1913	33 33	12	"		400 00
Fort William	"	"	John Skea	July 20, 1874	"	Sept. 1, 1912	45 83	12	"		550 00
Fergus	"	"	T. M. Broadfoot	June 14, 1843	"	April 1, 1912	33 33	12	"		400 00
Galt	"	"	Thos. Barrett	June 17, 1861	"	Aug. 1, 1902	41 66	12	"		500 00
Gananoque	"	"	H. McCalpin	June 18, 1845	"	Nov. 21, 1913	33 33	12	"		400 00
Glencoe	"	"	E. Waterworth	Aug. 19, 1852	"	Feb. 28, 1910	33 33	12	"		400 00
Goderich	"	"	A. Christal	Feb. 26, 1849	"	Aug. 22, 1912	37 50	12	"		450 00
Guelph	"	"	N. McLean	Oct. 7, 1868	"	Feb. 28, 1910	41 66	12	"		500 00
Hamilton	"	Dominion building	Alex. Benzie	June 20, 1858	Caretaker & Eng	Mar. 5, 1914	58 33	12	"		700 00
"	"	"	J. Wigglesworth	Aug. 7, 1863	Fireman	Oct. 1, 1896	62 50	12	"		750 00
"	"	"	B. Moriarity	Mar. 17, 1866	"	Dec. 31, 1911	60 00	12	"		720 00
"	"	"	T. Nicholson	Dec. 17, 1857	Engineer	Mar. 2, 1887	58 33	12	"		700 00
"	"	"	Alfred Barnard	Dec. 27, 1847		Dec. 10, 1894	58 33	12	"		700 00
"	"	"	T. C. Butler	1876	Cleaner	June 10, 1911	54 16	12	"		650 00
"	"	"	C. Partridge	April 2, 1869	"	April 12, 1909	54 16	12	"		650 00
"	"	"	William McRea		"		2 00	12	p. w. d.		626 00
"	"	"	Mrs. C. White	April 16, 1857	"	Mar. 6, 1907	1 25	p. w. day			141 00
Harriston	"	Public building	J. Gresh	June 19, 1856	Caretaker	Nov. 8, 1912	35 00	12 months			420 00
Hawkesbury	"	"	A. Marleau	Sept. 22, 1857	"	Aug. 7, 1906	33 33	12	"		400 00
Ingersoll	"	"	John McDonald	June 30, 1841	"	Nov. 20, 1900	37 50	12	"		450 00
Kenora	"	"	Mrs. J. Link	May 10, 1850	"	Dec. 7, 1901	33 33	12	"		400 00
Kincardine	"	"	Geo. D. Morrison, P.M.	Nov. 14, 1860	"	May 17, 1910	20 83	12	"		250 00
Kingston	"	Post Office	Jos. Kehoe	June 21, 1873	"	May 15, 1905	52 50	12	"		630 00
"	"	Custom house	Mrs. J. Stansbury	June 27, 1868	"	April 2, 1909	16 66	12	"		200 00
"	"	"	J. S. Spencer	Oct. 3, 1839	Stoker	Jan. 1, 1907	18 00	12	"		216 00
"	"	Inland Revenue building	J. Lawless	1833	"	Feb. 8, 1908	41 66	12	"		500 00
"	"	"	J. Loughern	1852	"	June 1, 1912	15 00	12	"		180 00
Leamington	"	Public building	J. W. Ross	Aug. 8, 1860	"	May 8, 1911	37 50	12	"		450 00
Lindsay	"	"	W. Healey	May 29, 1873	"	Nov. 10, 1908	37 50	12	"		150 00
Listowel	"	"	A. Bailey	Dec. 18, 1846	Caretaker	Nov. 28, 1912	33 33	12	"		400 00
London	"	Custom house	M. Mulkern	Sept. 4, 1837	Engineer	Sept. 18, 1888	50 00	12	"		600 00
"	"	"	W. Greer	Oct. 12, 1839	Caretaker	Mar. 16, 1884	50 00	12	"		600 00
"	"	Post Office	D. Regan	May 9, 1854	Engineer, &c	June 1, 1912	50 00	12	"		600 00
"	"	"	J. Gilbank	Dec. 4, 1861	Caretaker	May 31, 1906	41 66	12	"		500 00
Markham	"	Public building	Charles Wales	April 12, 1864	"	Aug. 9, 1909	50 00	12	"		600 00
Mitchell	"	"	F. Elliot	Nov. 14, 1857	"	April 18, 1913	33 33	12	"		400 00
Mount Forest	"	"	W. L. Smith	Aug. 12, 1839	"	Nov. 8, 1912	30 00	12	"		360 00
Napanee	"	"	Mrs. C. E. Webster	July 12, 1846	"	Oct. 4, 1900	41 66	12	"		500 00
Niagara Falls	"	"	J. C. Brown	May 1, 1862	"	June 1, 1910	53 33	12	"		640 00
North Bay	"	"	L. A. Gauthier	May 15, 1857	"	June 13, 1908	55 00	12	"		660 00
Orangeville	"	"	D. McPherson	April 30, 1851	"	July 15, 1900	50 00	12	"		600 00
Orillia	"	"	John Frawley	Mar. 14, 1844	"	Nov. 1, 1898	33 33	12	"		400 00
Oshawa	"	"	A. W. Brodie	Sept. 28, 1850	"	Dec. 11, 1905	41 66	12	"		500 00
Owen Sound	"	"	H. Wright	Nov. 24, 1841	"	Mar. 18, 1908	33 33	12	"		400 00

STATEMENT showing the names, etc., of the Engineers, Enginemen, Firemen, Caretakers, Hoist Attendants and Watchmen employed at Dominion Public Buildings on March 31, 1914.—*Continued.*

Place.	Building.	Name.	Date of Birth.	Position.	Date of Appointment.	Monthly Salary.	Time Employed each year.	Yearly Salary.
						$ cts.		$ cts.
Parkhill.....Ont.	Public building.....	W. H. Taylor, P.M.....	Aug. 4, 1847	Caretaker.....	May 12, 1910	16 66	12 months..	200 00
Paris ..... "	"	Sam Lee.....	Oct. 24, 1841	"	July 7, 1902	50 00	12 " ..	600 00
Pembroke..... "	"	H. Church.....	Nov. 15, 1864	"	Jan. 5, 1910	33 33	12 " ..	400 00
Petrolea..... "	"	James Shaw.....	June 11, 1842	"	Sept. 12, 1904	37 50	12 " ..	450 00
Peterborough..... "	"	G. Stenton.....	Sept. 17, 1847	"	Dec. 7, 1908	45 83	12 " ..	550 00
" ..... "	Custom house.....	B. McGill.....	April 4, 1854	"	Jan. 1, 1912	33 33	12 " .	400 00
Port Arthur..... "	Public building.....	Jas. Siddall.....	Oct. 1, 1853	"	May 1, 1913	45 83	12 " ..	550 00
Port Colborne..... "	"	Wm. Armstrong.....	Sept. 9, 1846	"	June 11, 1888	33 33	12 " ..	400 00
Port Hope ..... "	"	John Elliott.....	Oct. 27, 1877	"	Feb. 27, 1913	37 50	12 "	450 00
Port Perry..... "	"	Saml. Graham.....	June 8, 1848	"	Oct. 21, 1913	37 50	12 " .	450 00
Prescott..... "	"	G. Henry.....	Jan. 9, 1871	"	Nov. 7, 1913	50 00	12 " ..	600 00
Picton..... "	"	R. Ringer.....	Oct. 17, 1831	"	Oct. 1, 1912	33 33	12 " ..	400 00
Renfrew..... "	"	Robert Sim.....	Feb. 10, 1839	"	May 11, 1909	33 33	12 " ..	400 00
Sandwich..... "	"	John McLeod.....	Sept. 14, 1883	"	July 22, 1907	29 16	12 " .	350 00
Sault Ste. Marie..... "	"	P. J. Racine.....	Sept. 25, 1865	"	Sept. 25, 1905	37 50	12 " ..	450 00
" ..... "	"	H. E. Cannon.....	.....	Elevatorman....	Jan. 30, 1914	55 00	12 " ..	660 00
Sarnia ..... "	"	J. H. Dyble.....	Aug. 25, 1860	Caretaker.....	Nov. 7, 1903	45 83	12 " ..	550 00
Seaforth ..... "	"	J. McLennan.....	April 25, 1855	"	Sept. 2, 1913	33 33	12 " ..	400 00
Simcoe..... "	"	N. Porter.....	June 6, 1861	"	Nov. 21, 1910	40 00	12 "	480 00
Smith's Falls..... "	"	R. W. Lewis.....	Aug. 19, 1863	"	Jan. 8, 1896	33 33	12 " .	400 00
St. Catharines..... "	"	A. Clark.....	Sept. 14, 1860	"	Dec. 12, 1904	37 50	12 " ..	450 00
St. Mary's..... "	"	W. Hoyt.....	May 19, 1856	"	Mar. 16, 1908	33 33	12 " ..	400 00
St. Thomas..... "	"	G. Lutton.....	May 25, 1857	"	April 14, 1903	37 50	12 " ..	450 00
Strathroy..... "	"	N. Leitch.....	April 12, 1868	"	June 29, 1911	33 33	12 " ..	400 00
Stratford..... "	"	J. P. Murray.....	July 29, 1850	"	July 26, 1900	50 00	12 " ..	600 00
Tilbury..... "	"	Hy. Benoit.....	Oct. 26, 1860	"	Feb. 19, 1914	33 33	12 " ..	400 00
Tilsonburg..... "	"	Thos. Fero.....	Dec. 19, 1856	"	Mar. 9, 1912	33 33	12 " ..	400 00
Toronto ..... "	Dominion buildings.....	H. E. Hamilton.....	April 14, 1838	Superintendent..	April 10, 1902	100 00	12 " ..	1,200 00
" ..... "	"	Wm. Corrigan.....	Oct. 9, 1864	Asst. " ..	Oct. 17, 1912	100 00	12 " ..	1,200 00
" ..... "	"	J. H. Rogers.....	Feb. 26, 1890	Electrician	Sept. 16, 1912	75 00	12 " ..	900 00
" ..... "	"	A. W. Carlton.....	Mar. 19, 1870	"	Dec. 1, 1911	75 00	12 " ..	900 00
" ..... "	"	Wm. Graham.....	Mar. 16, 1840	Carpenter	Oct. 16, 1896	75 00	12 " ..	900 00
" ..... "	"	Wm. Allison.....	Aug. 1, 1855	Window cleaner.	June 10, 1912	58 33	12 " ..	700 00
" ..... "	"	Jno. Duckworth.....	Dec. 28, 1880	"	July 17, 1910	58 33	12 " ..	700 00
" ..... "	General Post Office ...	Jno. Somers.....	April 8, 1835	Store keeper....	Oct. 9, 1897	62 50	12 " ..	750 00
" ..... "	"	Ed. Appleton.....	Sept. 26, 1864	Chief Fireman..	Sept. 28, 1886	70 83	12 " ..	850 00
" ..... "	"	Rich. Eyre.....	Oct. 11, 1849	Fireman.....	Mar. 15, 1895	66 66	12 " ..	800 00

"	"	"	T. Letray			1858	"		May	1	1907	66	66	12	"	"	800 00
"	"	"	T. J. Burns	May	6,	1864	"		Nov.	23,	1912	66	66	12	"	"	800 00
"	"	"	M. Cartney	Nov.	25,	1861	"		July	8,	1913	66	66	12	"	"	800 00
"	"	"	W. Hall	Jan.	2,	1875	"		Dec.		1913	66	66	12	"	"	800 00
"	"	"	Robert. Moore	May	24,	1862	Elevatorman		Sept.	12,	1911	58	33	12	"	"	700 00
"	"	"	Alex. Morrice	Jan.	27,	1862	"		Feb.	21,	1911	58	33	12	"	"	700 00
"	"	"	H. McCollough	April	24,	1856	"		June	1,	1911	58	33	12	"	"	700 00
"	"	"	Sam. Walker	Dec.	14,	1880	"		Dec.	9,	1912	58	33	12	"	"	700 00
"	"	"	W. Watson	Aug.	25,	1856	"		Dec.	15,	1913	58	33	12	"	"	700 00
"	"	"	J. Babe	April	2,	1851	"		Dec.	20,	1913	58	33	12	"	"	700 00
"	"	"	J. McCrohan	July	20,	1862	"		Dec.		1913	58	33	12	"	"	700 00
"	"	"	Wm. Gribble	Mar.	7,	1860	Cleaner		Feb.		1905	62	50	12	"	"	750 00
"	"	"	Chas. Gregory	July	27,	1857	"		Feb.		1904	58	33	12	"	"	700 00
"	"	"	Jno. Cotton	July	31,	1864	"		Feb.	17,	1908	58	33	12	"	"	700 00
"	"	"	J. P. Motta	Feb.	19,	1856	"		Dec.	9,	1912	58	33	12	"	"	700 00
"	"	"	Geo. McCallum	July	8,	1868	"		Feb.	17,	1909	58	33	12	"	"	700 00
"	"	"	Jno. Hayes	Oct.	9,	1857	"		Aug.	15,	1910	58	33	12	"	"	700 00
"	"	"	L. S. Deas	Jan.	15,	1854	"		July		1907	58	33	12	"	"	700 00
"	"	"	Amb. McCabe	Sept.	6,	1873	"		June	20,	1911	58	33	12	"	"	700 00
"	"	"	Jno McCasson	July	21,	1871	"		Jan.	21,	1911	58	33	12	"	"	700 00
"	"	"	Fred. Edwards	May	20,	1872	"		July	18,	1904	58	33	12	"	"	700 00
"	"	"	Thos. Russell	April	21,	1876	"		Oct.	20,	1909	58	33	12	"	"	700 00
"	"	"	T. J. Cosgrove	Oct.	6,	1861	"		July	13,	1913	58	33	12	"	"	700 00
"	"	"	A. McCord	May	9,	1856	"		Dec.	18,	1913	58	33	12	"	"	700 00
"	"	"	A. McCourt	May	29,	1872	"		Dec.	17,	1913	58	33	12	"	"	700 00
"	"	"	G. Auchineloss	Nov.	16,	1872	"		Nov.	21,	1913	58	33	12	"	"	700 00
"	"	"	G. Hamlet	Mar.	15,	1861	"		Dec.	16,	1913	58	33	12	"	"	700 00
"	"	Garage, etc.	Hy. Gray	Dec.	10,	1872	"		Nov.	19,	1912	62	50	12	"	"	750 00
"	"	Can. & Dom. Express	Bruno Marando	Sept.	25,	1875	Fireman		Nov.	25,	1912	66	66	12	"	"	800 00
"	"	Ex.-Warehouse	Jas. Cosgrove	Feb.	10,	1844	Engineer		Oct.	28,	1874	83	33	12	"	"	1,000 00
"	"	"	J. G. Matheson	Oct.	15,	1865	Asst. Engineer		Mar.	14,	1912	79	16	12	"	"	950 00
"	"	"	Pat Cussack	Mar.	26,	1875	Elevatorman		Sept.	20,	1907	62	50	12	"	"	750 00
"	"	"	Jas. Cashen	June	28,	1866	"		July	25,	1906	62	50	12	"	"	750 00
"	"	"	P. W. Colbey	Feb.	24,	1876	"		June	4,	1912	62	50	12	"	"	750 00
"	"	"	Thos. Collis	Nov.	5,	1872	"		July	15,	1912	58	33	12	"	"	700 00
"	"	Ex-warehouse, &c.	Wm. Stringer	Jan.	22,	1881	Cleaner		Oct,		1905	58	33	12	"	"	700 00
"	"	"	A. E. Hales	July	8,	1881	"		May	1,	1906	58	33	12	"	"	700 00
"	"	"	Ed. Major	Sept.	9,	1864	"		Dec.	10,	1912	58	33	12	"	"	700 00
"	"	Custom house	W. H. Pearce	April	29	1862	Fireman		Nov.	20,	1912	66	66	12	"	"	800 00
"	"	"	Thos. Jones	Nov.	10,	1853	Watchman		April	4,	1912	58	33	12	"	"	700 00
"	"	"	T. J. Enright			1862	Caretaker		Dec.	18,	1906	54	16	12	"	"	650 00
"	"	"	Pat. Cassidy	May	2,	1862	Fireman		May	8,	1906	66	66	12	"	"	800 00
"	"	"	F. Simpson	Jan.	8,	1859	Watchman		Sept.	1,	1903	58	33	12	"	"	700 00
"	"	"	Wm. Scott			1838	"		June	1,	1905	$2 00	p.d.	12	"	"	730 00
"	"	"	Thos. Davidson	June	20,	1861	Elevatorman		April	22,	1911	58	33	12	"	"	700 00
"	"	"	Wm. Murphy	Sept.	16,	1868	Cleaner		Sept.	23,	1905	58	33	12	"	"	700 00
"	"	"	Hy. Somers	Mar.		1851	"		Mar.	3,	1907	58	33	12	"	"	700 00
"	"	Inland Revenue	Chas. Baillie	Sept.	22,	1852	Fireman		Jan.	13,	1891	54	16	12	"	"	650 00
"	"	P. O. Sta. "A"	Jno. Gormaly	Nov.	26,	1872	Elevatorman		Oct.	31,	1901	62	50	12	"	"	750 00

STATEMENT showing the names, etc., of the Engineers, Enginemen, Firemen, Caretakers, Hoist Attendants and Watchmen employed at Dominion Public Buildings on March 31, 1914—*Continued*.

Place.	Building.	Name	Date of Birth.	Position.	Date of Appointment.	Monthly Salary.	Time Employed each year.	Yearly Salary
						$ cts.		$ cts.
Toronto, Ont.	P.O. Sta. "A"	E. F. Tooze	Dec. 8, 1865	Elevatorman	Dec. 15, 1909	62 50	12 months	750 00
" "	"	O. Johnston	July 18, 1874	"	Feb. 14, 1910	62 50	12 "	750 00
" "	P. O. Sta. "C"	James Rae	Feb. 17, 1864	Caretaker	Jan. 12, 1884	52 08	12 "	625 00
" "	P. O. Sta. "D"	James Devine	Feb. 18, 1847	"	Feb. 3, 1905	52 08	12 "	625 00
" "	P. O. Sta. "F"	J. W. Thornton	April 11, 1867	"	April 7, 1907	62 50	12 "	750 00
" "	"	Thos. Bridges	Sept. 22, 1880	Cleaner	Aug. 11, 1911	58 33	12 "	700 00
" "	P. O. Sta. "K"	Jas. Kirkwood	Dec. 9, 1850	Caretaker	Dec. 9, 1912	45 83	12 "	550 00
Trenton "	Public building	John Potter	June 20, 1840	"	April 1, 1912	37 50	12 "	450 00
Uxbridge "	"	M. Linton		"	Oct. 3, 1913	33 33	12 "	400 00
Walkerton "	"	Mrs Thos. Gibson	Jan. 21, 1861	"	May 12, 1905	33 33	12 "	400 00
Waterloo "	"	Geo. Suggitt	Aug. 28, 1846	"	June 13, 1913	33 33	12 "	400 00
Welland "	"	D. McIlvride	May 16, 1876	"	June 9, 1910	41 66	12 "	500 00
Whitby "	"	John Ard	Aug. 19, 1854	"	May 1, 1913	37 50	12 "	450 00
Windsor "	"	Wm. Curtis	Mar. 6, 1844	"	Nov. 9, 1880	37 50	12 "	450 00
" "	"	Israel Belleperche	Oct. 26, 1848	Engineer	Dec. 24, 1897	54 16	12 "	650 00
Wingham "	"	P. Fisher, P.M.	Dec. 12, 1832	Caretaker	Nov. 19, 1906	16 66	12 "	200 00
Woodstock "	"	Robert Kerr	June 6, 1864	"	Dec. 11, 1901	50 00	12 "	600 00
Brandon Man.	"	Jos Quackenbush	June 14, 1857	"	Dec. 1, 1912	85 00	12 "	1,020 00
Dauphin "	"	G. Broadfoot	Jan. 1, 1853	"	Jan. 1, 1911	45 00	12 "	540 00
Emerson "	"	H. Pennock	Sept. 12, 1871	"	July 1, 1912	41 66	12 "	500 00
Neepawa "	"	P. McCrea	July 8, 1851	"	Sept. 1, 1913	65 00	12 "	780 00
Portage la prairie "	"	Hy. Johns	July 25, 1840	"	Aug. 1, 1912	45 00	12 "	540 00
" " "	New "	T. C. Jackson	Feb. 25, 1859	"	Sept. 1, 1913	33 33	12 "	400 00
Selkirk "	"	Jas Massey	Sept. 15, 1859	"	April 1, 1914	55 00	12 "	660 00
Souris "	"	T. Summerfield	Mar. 12, 1858	"	Jan. 29, 1912	37 50	12 "	450 00
St Boniface "	"	J. A.S. Chaussé	Aug. 20, 1867	"	Oct, 1, 1908	55 00	12 "	660 00
Winnipeg "	Old post office	M. McIvor	Nov. 12, 1867	Engineer	Oct. 15, 1909	75 00	12 "	900 00
" "	"	Jos. Coutu	May 10, 1843	Elevatorman	Mar. 16, 1887	65 00	12 "	780 00
" "	"	A. Boiteau	Sept. 23, 1860	Ngt. Watchman	April 4, 1905	60 00	12 "	720 00
" "	"	B. Wasserman	1866	Cleaner	Feb. 23, 1912	65 00	12 "	780 00
" "	Custom house	M. Hawkins	Jan. 17, 1850	"		60 00	12 "	720 00
" "	"	J. E. Webster	June 24, 1877	Fireman	Sept. 25, 1911	60 00	12 "	720 00
" "	New post office	W. J. Smith	Mar. 27, 1863	Caretaker	Mar. 31, 1910	65 00	12 "	780 00
" "	"	Jos. Hay	May 4, 1853	Engineer	July 20, 1905	90 00	12 "	1,080 00
" "	"	G. Buchanan	April 6, 1862	Fireman	Nov. 20, 1911	70 00	12 "	840 00
" "	"	A. Sabiñe	Sept. 10, 1862	"	Oct. 1, 1913	70 00	12 "	840 00
" "	"	T. Rondeau	Aug. 11, 1880	"	Feb. 14, 1913	70 00	12 "	840 00

Winnipeg, Man.	New post office	J. Watterson	April 1, 1882	Fireman	Jan. 31, 1912	70 00	12 months		840 00
" "	"	Wm. Thorarinson	Feb. 10, 1874	Elevatorman	July 10, 1908	65 00	12 "		780 00
" "	"	F. Jenkins	Feb. 21, 1874	"	July 10, 1908	65 00	12 "		780 00
" "	"	P. Handel	1860	"	April 1, 1913	65 00	12 "		780 00
" "	"	T. McMaighan	Oct. 10, 1879	"	Nov. 23, 1908	65 00	12 "		780 00
" "	"	Ed. Hood	Aug. 5, 1885	"	April 15, 1914	65 00	12 "		780 00
" "	"	W. Shields	Sept. 3, 1852	Patrolman	Mar. 20, 1913	100 00	12 "		1,200 00
" "	"	Mrs. M. Pugsley	Oct. 13, 1857	Cleaner	Sept. 19, 1912	95 00	12 "		1,140 00
" "	"	Mrs E. Fentrell	July 5, 1860	"	April 17, 1910	94 00	12 "		1,128 00
" "	"	Mrs. E. J. Buck	Dec. 24, 1861	"	Sept. 1, 1909	24 00	12 "		288 00
" "	"	Expert Oriental Window Cleaning Co		"		12 50	12 "		150 00
" "	New Ex. warehouse	Wm. Clark	Oct. 8, 1868	Engineer	July 1, 1908	85 00	12 "		1,020 00
" "	"	J. Saunders	Oct. 25, 1848	Fireman	Nov. 23, 1908	70 00	12 "		840 00
" "	"	John Kennedy	April 1, 1867	"	Oct. 6, 1910	65 00	12 "		780 00
" "	"	John Rohan	April 16, 1879	"	Oct. 6, 1910	65 00	12 "		780 00
" "	"	H. Cox	July 5, 1883	Elevatorman	Mar. 10, 1914	65 00	12 "		780 00
" "	"	A. H. Smith	1843	"	May 8, 1912	65 00	12 "		780 00
" "	"	Jos. Knott	Jan. 21, 1864	"	Oct. 6, 1910	65 00	12 "		780 00
" "	"	S. B. Jeffery	April 9, 1878	Caretaker	Oct. 6, 1910	80 00	12 "		960 00
" "	"	F. Burns	1870	Fireman	Oct. 25, 1912	65 00	12 "		780 00
" "	P. O. Station B	John Lamb	Nov. 6, 1849	Caretaker	May 16, 1908	60 00	12 "		720 00
" "	Public building	J. M. Scott	1886	Electrician	April 1, 1914	100 00	12 "		1,200 00
" "	"	Jas. Newton	Mar. 14, 1863	"	Oct. 7, 1912	85 00	12 "		1,020 00
" "	"	J. Gottskalkson	June 29, 1864	Carpenter	Feb. 23, 1914	75 00	12 "		900 00
" "	C. H. and P. O.	Miss R. Bagshawe	1866	Cleaner	Feb. 15, 1905	85 00	12 "		1,020 00
" "	Post office	M. Herczuk	1876	"	1910	5 00	12 "		60 00
" "	"	Tini Priest	1875	"	1907	20 00	12 "		240 00
" "	Custom house	Mrs. M. E. Tittle	Sept. 21, 1868	"	June 13, 1912	70 00	12 "		840 00
" "	Immigration building	P. C. Devy	July 10, 1877	Elevatorman	Feb. 9, 1912	65 00	12 "		780 00
" "	"	J. Johnson	Nov. 11, 1866	"	Sept. 20, 1912	65 00	12 "		780 00
Calgary, Alta.	P. O. building	W. A. English	Mar. 24, 1874	Caretaker	Feb. 25, 1873	90 00	12 "		1,080 00
" "	"	Thos. Gall	Mar. 7, 1876	Asst. caretaker	Dec. 11, 1913	65 00	12 "		780 00
Edmonton "	"	W. A. Clark	Sept. 9, 1868	Caretaker	May 9, 1913	75 00	12 "		900 00
" "	New post office	J. Knowles	Sept. 21, 1860	Elevatorman	July 18, 1913	60 00	12 "		720 00
" "	"	H. Cantera	Aug. 10, 1880	"	Dec. 22, 1913	60 00	12 "		720 00
" "	"	Geo. Hutton	Feb. 8, 1878	Caretaker	July 16, 1913	70 00	12 "		840 00
" "	"	A. Adamson	June 20, 1891	Fireman	Nov. 1, 1913	70 00	12 "		840 00
" "	"	A. Osborne	Nov. 23, 1868	Fireman	Oct. 1, 1913	70 00	12 "		840 00
" "	"	W. C. Hoey	Oct. 4, 1859	Elevatorman	July 13, 1913	60 00	12 "		720 00
" "	"	F. Lovell	April 13, 1883	Asst. caretaker	April 1, 1912	70 00	12 "		840 00
" "	"	Geo. Lovell	Feb. 19, 1879	Cleaner	Aug. 1, 1912	70 00	12 "		840 00
" "	Dominion lands	J. Duggan	April 19, 1871	Caretaker	Nov. 27, 1909	25 00	12 "		300 00
Lethbridge "	Public building	W. C. Norman	Feb. 7, 1876	"	Dec. 14, 1909	50 00	12 "		600 00
Medicine Hat "	"	Thos. Taylor	Oct. 31, 1875	"	May 1, 1912	75 00	12 "		900 00
" "	"	T. Bridge	Feb. 19, 1880	Asst. caretaker	June 1, 1914	60 00	12 "		720 00
Red Deer "	Court house, &c.	L. Grossith	Jan. 24, 1883	Caretaker	July 1, 1912	65 00	12 "		780 00
Strathcona "	Public building	Hy. Rickard	Nov. 13, 1867	"	Aug. 1, 1912	75 00	12 "		900 00
Wetaskiwin "	"	N. S. Angus	Sept. 27, 1879	"	April 1, 1914	50 00	12 "		600 00
Battleford, Sask.	"	E. M. Webb	July 26, 1875	"	Jan. 17, 1912	45 00	12 "		540 00

STATEMENT showing the names, etc., of the Engineers, Enginemen, Firemen, Caretakers, Hoist Attendants and Watchmen employed at Dominion Public Buildings on March 31, 1914—*Continued.*

Place.	Building.	Name.	Date of Birth.	Position.	Date of Appointment.	Monthly Salary.	Time Employed each year.	Yearly salary.
						$ cts.		$ cts.
Battleford North.....Sask.	Public building	B. Dye	Oct. 31, 1864	Caretaker	Dec. 12, 1913	45 00	12 months	540 00
Estevan "	"	R. Murray	Sept. 27, 1856	"	May 23, 1910	45 00	12 "	540 00
Humboldt "	"	N. Kingsly	April 23, 1856	"	Jan. 1, 1913	50 00	12 "	600 00
Maple Creek "	"	W. A. Douglas, P.M	Feb. 27, 1856	"	June 25, 1909	16 66	12 "	200 00
Melfort "	"	E. W. McCrea	June 5, 1837	"	Mar. 3, 1913	45 00	12 "	540 00
Moosejaw "	Post office	R. West	Sept. 12, 1855	"	Sept. 21, 1906	54 16	12 "	650 00
" "	"	W. Potts	April 27, 1864	Fireman	April 22, 1914	50 00	12 "	600 00
" "	Railway mail service	Geo. Broomfield	June 7, 1880	Caretaker	Nov. 1, 1913	10 00	12 "	120 00
Prince Albert "	Public building	E. Collins	Aug. 13, 1878	"	Feb. 1, 1914	75 00	12 "	900 00
" "	"	Mrs. A. Whitefor	1893	Charwoman	" 1, 1913	30 00	12 "	360 00
" "	"	S. Sabo	April 5, 1880	Fireman	Oct. 3, 1913	60 00	12 "	720 00
" "	Baker's building	Mrs. W. Walker	July 8, 1874	Charwoman	" 1, 1913	15 00	12 "	180 00
Regina "	Land office	T. Perkins	Sept. 14, 1852	"	Sept. 24, 1906	50 00	12 "	600 00
" "	Post office	J. Malcolsom	Nov. 9, 1857	"	" 5, 1906	60 00	12 "	720 00
" "	"	Mrs. M. Sonoski	May 3, 1876	Cleaner	Nov. 5, 1909	40 00	12 "	480 00
" "	"	R. J. Corbin	April 27, 1880	Fireman	April 1, 1913	55 00	12 "	660 00
" "	"	E. Ivett		Elevatorman		50 00	12 "	600 00
" "	Land office	W. J. Gore	July 24, 1865	Caretaker	May 6, 1901	50 00	12 "	600 00
Saskatoon "	Public building	S. H. Monk	Mar. 20, 1889	"	Feb. 19, 1914	75 00	12 "	900 00
" "	"	John Kearns	May 15, 1859	Asst. caretaker	June 23, 1912	65 00	12 "	780 00
Weyburn "	"	Jas. Ross	Sept. 7, 1860	Caretaker	July 1, 1913	45 00	12 "	540 00
Yorkton "	"	E. Arnsby	May 13, 1867	Asst. caretaker	Oct. 1, 1912	45 00	12 "	540 00
Atlin .B. C.	Post office	J. A. Fraser	Jan. 1, 1851	Caretaker	June 26, 1901	12 50	12 "	150 00
Chilliwack "	Public building	S. Mellard	Sept. 24, 1854	"	Feb. 15, 1913	50 00	12 "	600 00
Cranbrook "	"	S. Fyles	Aug. 14, 1870	"	Jan. 27, 1913	65 00	12 "	780 00
Cumberland "	"	Thos. Cook	May 29, 1844	"	" 7, 1910	54 16	12 "	650 00
Fernie "	"	R. H. McEwan	Dec. 13, 1857	"	" 2, 1910	70 00	12 "	840 00
Grand Forks "	"	N. Taylor	July 19, 1863	"	Oct. 25, 1912	50 00	12 "	600 00
Kamloops "	"	W. W. Taylor	Jan. 31, 1853	"	Dec. 9, 1910	60 00	12 "	720 00
Ladysmith "	"	Robert Bell	Feb 29, 1840	"	April 1, 1909	50 00	12 "	600 00
Nanaimo "	"	J. Stewart	Aug. 20, 1896	"	May 7, 1912	65 00	12 "	750 00
" "	"	M. Smith	April 7, 1863	Cleaner	July 29, 1911	55 00	12 "	660 00
New Westminster "	"	L. Thornber	" 4, 1846	Caretaker	" 11, 1906	70 00	12 "	840 00
" "	"	J. Houston	Feb. 29, 1868	Cleaner	Mar. 11, 1914	70 00	12 "	840 00
" "	"	S. Abra	Mar. 16, 1858	Elevatorman	" 12, 1914	70 00	12 "	840 00
" "	Indian, etc., building	A. H. Oakley	April 26, 1861	Caretaker	Feb. 2, 1909	50 00	12 "	600 00

Nelson	"	Public building	Wm. Linch	July	18, 1853	"	June	1, 1911	50 00	12	600 00
Rossland	"	"	H. McQuade	Dec.	14, 1851	"	Aug.	1, 1906	50 00	12	600 00
Vancouver	"	"	A. J. Chisholm	April	18, 1851	"	Oct.	1, 1903	75 00	12	900 00
"	"	New building	D. Inches	Dec.	9, 1856	Engineer	Feb.	1, 1909	95 00	12	1,140 00
"	"	Public building	G. Wilson	June	4, 1836	Watchman	Oct.	8, 1909	65 00	12	780 00
"	"	"	Jos. Mulvaney	July	14, 1889	Elevatorman	April	26, 1911	70 00	12	840 00
"	"	"	Fred. Pierrie	Mar.	26, 1891	"	June	1, 1913	65 00	12	780 00
"	"	"	J. Dunsmuir	Nov.	16, 1858	Cleaner	"	10, 1910	70 00	12	840 00
"	"	"	Jas. Commeford	July	12, 1855	"	July	-, 1913	70 00	12	840 00
"	"	Postal station "B"	Jas. Robinson	June	6, 1856	Caretaker	Aug.	7, 1913	85 00	12	1,020 00
"	"	" "C"	J. D. Thompson	Jan.	31, 1856	"	Sept.	9, 1912	70 00	12	840 00
"	"	New Examin. warehouse	T. H. Robson	March	23, 1851	Caretaker	Sept.	29, 1913	85 00	12 months	1,020 00
"	"	"	D. H. Colman	Nov.	19, 1873	Engineer	Sept.	17, 1913	110 00	12	1,320 00
"	"	"	J. W. Powell			Elevatorman			70 00	12	840 00
"	"	"	Arthur Hill	June	8, 1875	"	Mar.	2, 1914	70 00	12	840 00
"	"	"	Robert Bradley	April	11, 1872	"	April	1, 1914	70 00	12	840 00
"	"	"	S. Hicks		1893	"	April	6, 1914	70 00	12	840 00
"	"	"	W. G. McDonald		1865	"	June	16, 1914	70 00	12	840 00
"	"	"	J. Sarginson	April	1, 1856	Cleaner	June	20, 1914	70 00	12	840 00
"	"	"	W. O. Williams		1867	"	May	23, 1913	70 00	12	840 00
"	"	New Public building	M. Churchill	June	13, 1854	"	Oct.	1, 1911	70 00	12	840 00
"	"	"	Thos. A. Smith	Oct.	18, 1870	"	Feb.	1, 1911	70 00	12	840 00
"	"	"	S. March	Nov.	15, 1880	"	April	26, 1911	70 00	12	840 00
"	"	"	J. McCourt	Sept.	15, 1865	"	Nov.	1, 1910	60 00	12	720 00
"	"	"	Jas. Mulmaney	Dec.	18, 1875	"	March	1, 1910	70 00	12	840 00
"	"	"	R. Keller	June	16, 1893	Elevatorman	June	1, 1913	65 00	12	780 00
Vernon	"	Public building	C. E. Mohr	April	28, 1853	Caretaker	Aug.	1, 1912	70 00	12	840 00
Victoria	"	"	Wm. McKay	Dec.	31, 1857	"	Feb.	4, 1898	85 00	12	1,020 00
"	"	"	Wm. Dick	Sept.	—, 1856	Fireman	Oct.	1, 1908	70 00	12	840 00
"	"	"	Thos. Fuller	May	7, 1876	Asst. caretaker	Dec.	12, 1912	70 00	12	840 00
"	"	"	John Cragg	Jan.	18, 1856	Fireman	May	1, 1911	70 00	12	840 00
"	"	"	F. Cateral	Oct.	22, 1881	Elevatorman	Dec.	1, 1913	70 00	12	840 00
"	"	"	J. Harris	July	27, 1875	Cleaner	July	1, 1913	70 00	12	840 00
"	"	"	P. Dryborough	April	18, 1870	"	Nov.	20, 1912	70 00	12	840 00
"	"	"	W. J. Gower	Sept.	6, 1869	"	May	29, 1912	70 00	12	840 00
"	"	Old custom house	E. J. Bayntun	May	30, 1871	Caretaker	Dec.	1, 1913	60 00	12	720 00
"	"	Old Examin. warehouse	Albert Ward	Mar.	9, 1881	"	Nov.	1, 1913	80 00	12	960 00
"	"	Old post office	W. G. Bowden	Mar.	25, 1866	"	Oct.	1, 1908	20 00	12	240 00
Dawson Yukon		Post office	R. J. Ogburn	Sept.	17, 1852	"	May	1, 1912	180 00	12	2,160 00
"	"	"	A. Ransley	May	1, 1863	Nightman	Nov.	1, 1913	180 00	12	2,160 00
"	"	"	J. Wyness	Sept.	1, 1871	Charman	April	1, 1913	180 00	12	2,160 00
"	"	Administration building	J. A. Murphy	June	29, 1877	Caretaker	June	10, 1912	180 00	12	2,160 00
"	"	"	J. A. Craig	Oct.	28, 1858	Nightman	June	1, 1912	180 00	12	2,160 00
"	"	"	C. Corbeil	Dec.	28, 1864	Charman	June	1, 1912	180 00	12	2,160 00
"	"	"	J. B. Deslauriers	July	12, 1875	"	June	1, 1906	160 00	12	1,920 00
"	"	Commissioner's residence	N. P. McDonald	Oct.	8, 1879	Caretaker	Dec.	1, 1905	160 00	12	1,920 00
"	"	"	C. Paddock	Mar.	19, 1870	Nightman	July	1, 1912	160 00	12	1,920 00
"	"	"	Mrs. Regina Nielson			Charwoman	April	1, 1914	100 00	12	1,200 00
White Horse		Public building	C. J. McLennan	Dec	12, 1850	Caretaker	Oct.	30, 1902	125 00	12	1,500 00